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J. J. CASSIDY, M.D., EDITOR.

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NO. 1.

Original Contributions.

SOME OBSERVATIONS UPON THE TREATMENT OF LUPUS VULGARIS BY PHOTOTHERAPY, RADIOTHERAPY AND OTHERWISE.*

BY CHARLES R. DICKSON, M.D., TORONTO.

Electro-therapist to Toronto General Hospital, Hospital for Sick Children, St. Michael's Hospital,
Ex-President of the American Electro-Therapeutic Association and Delegate
of the Association to the International Electrical Congress,
St. Louis, Mo., U.S.A., 1904.

UNTIL a comparatively recent period the treatment of lupus vulgaris had not been attended with brilliant results, and it remained for electro-therapy, as on so many other fields of conquest, to point the way to a more hopeful outcome.

This brief paper will not deal with the varied procedures of the past, dignified by the name of treatment, nor yet with all the minute and interesting details of modern scientific technique in such happy contrast with former methods. No striking, novel, original theories will be advanced, but merely a few unpretentious observations, particularly with regard to cases of long standing and unusual obstinacy, as a contribution to the literature of a subject which is deservedly attracting much attention at the present time.

In the treatment of lupus the X-rays scored their first therapeutic triumph, and a most notable one it was. To Finsen is due the credit for compelling the medical profession to recognize the therapeutic efficacy of light in affections of the skin, and this led to the employment of X-rays in the treatment of lupus, the result

* Read before International Electrical Congress, St. Louis, Mo., September 12-17, 1904, at a joint session of Section II with The American Electro-Therapeutic Association.

being that to-day phototherapy and radiotherapy are admittedly the most potent means at our disposal for combating and conquering a most distressing condition.

Each method has its advocates. In America, radiotherapy has claimed the allegiance of the greater number of investigators, probably due to the fact that nowhere has the static machine reached such perfection of development and use as here, and nowhere has more enthusiastic admirers, and for the possessor of such a machine the necessary X-ray apparatus involves but comparatively slight additional outlay, while the Finsen light is an expensive luxury, occupying much space and demanding more valuable time than the average practitioner can afford to give it.

Many very ingenious devices have been resorted to in the endeavor to overcome the difficulties which militate so seriously against the popularity of phototherapy. A form of apparatus which I have found of much service in many cases is a condenser spark lamp, with iron electrodes, known as "The Ultra." It is used with the alternating current drawn from an ordinary incandescent lamp socket. The diminutive arc of this lamp emits comparatively few light rays, but is very rich in violet and ultra-violet rays, as may readily be demonstrated. Being richer in the ultra-violet rays than the Finsen light, it is more powerfully and more rapidly bactericidal, and thus the time of exposure is materially lessened, so that from three to ten minutes only is required, instead of the half-hour, hour or more of the Finsen lamp.

While the ultra-violet rays emitted by the iron electrode are of shorter wave length, more refrangible, and not so penetrating as the rays of greater wave length—the longer ultra-violet, violet and blue of the large Finsen lamps—yet they have a wide field of usefulness in lupus, and my remarks upon phototherapy will refer to this branch of the subject alone, demonstrating some of its possibilities.

The treatment of lupus vulgaris in its more aggravated forms is far from a simple process; many considerations are involved and much of the success will depend upon the skill, resourcefulness and patience of the operator, not to mention the faith and perseverance of the patient. Fixed rules cannot be laid down, and yet there are certain preliminaries and adjuvants to treatment, attention to which may be of very material assistance, and these apply to both photo and radiotherapy.

The production of artificial fluorescence of the tissues by administering some fluorescing substance before raying, as elaborated by Morton, is an undoubted advantage. From five to ten grains of bisulphate of quinine may be given one hour before each raying for this purpose. Many other substances may be similarly employed—fluorescein and others.

In very obstinate cases the internal administration of creosote in a form which can be tolerated and readily assimilated, may prove of great value in hastening a cure, and attention should be paid to the general condition of the patient, if necessary.

The diseased tissues should be subjected to as little irritation as possible by manipulation in removing crusts or otherwise, and should also be kept as quiescent as possible in the intervals between treatment in order that extension of the disease may not be favored. If crusts or scales are present they should be removed before treatment if possible, and the parts cleansed. For this purpose, glycerin, to which has been added 25 per cent. of oil of eucalyptus, may be applied, but should it not soon cause loosening of the crusts further attempts at removal should be desisted from for the present and raying proceeded with, allowing the eucalyptus-glycerin to remain on. If the crusts are still adherent at the conclusion of the treatment, they should be kept covered with white vaselin until the succeeding treatment, when they will probably be found softened sufficiently to be removable by forceps or absorbent cotton.

The patient should avoid the use of water or of aqueous solutions for cleansing affected areas if the skin is broken: the parts should be wiped off with vaselin instead, and kept as dry and as clean as possible.

The eucalyptus-glycerin, varying the strength to individual needs, if necessary, may with advantage be applied to ulcerated or broken surfaces and a border of surrounding sound tissues before each raying in inveterate cases. It is quite transparent to ultra-violet and X-rays. In cases where the edges of an ulcer are healing very slowly, but the disease is not deeply seated, the application of a very thin layer of vaselin to the edges before raying has seemed to accelerate healthy granulation, and as white vaselin fluoresces a brilliant violet under the ultra-violet rays, while ordinary vaselin fluoresces a greenish blue, and to a much less degree, and, moreover, being of a yellow color, absorbs the greater portion of the rays, the former is preferable. Creosote, oil of cloves and oil of cinnamon are opaque to the rays; oil of winter-green fluoresces blue.

Rays of short wave length are absorbed and neutralized by those of greater length, and the greater the disparity the greater the amount of absorption; hence the short ultra-violet rays are thus affected to the greatest degree by those at the opposite end of the spectrum, the long red orange and yellow. For this reason the removal of crusts before phototherapy is employed is especially necessary, for the color of the crusts, reddish or yellow, will not permit the action of the ultra-violet rays upon the parts beneath.

Blood on the surface or circulating in the capillary vessels

has the same effect to a greater degree, and to counteract this effect the surface should be cleaned and adrenalin chloride applied to constrict the capillary vessels and drive the blood out of them, thus blanching the tissues, repeating the application as often as necessary during the sitting. The adrenalin may conveniently be added to the glycerin and applied before arranging the apparatus to be used; it will thus be afforded the few minutes necessary to its complete action before beginning operations, and raying should not commence until the parts are well blanched. It is rarely necessary to employ the adrenalin full strength (1-1,000), in fact weaker solutions may be more readily absorbed. This blanching of tissues and removal of crusts is also of benefit in radiotherapy.

In phototherapy a lens of rock crystal is sometimes employed to press upon the parts to make them anemic, and pieces of ice have also been used for the same purpose, but with the ultra-violet rays, which act so powerfully upon the surface, pressure is to be avoided as far as possible, as causing unnecessary irritation, and more reliance is to be placed in adrenalin. Rock crystal and ice are transparent to the ultra-violet as to the X-rays, while glass is opaque to both, a fact which is sometimes made use of.

If practicable, a margin of sound tissue about one-quarter of an inch in width surrounding the diseased areas should be left exposed to the rays, all other sound tissue in their range should be shielded; in the case of X-rays, thin sheet lead, or the tinned lead composition known as "X-ray metal," may be used, stellate apertures being cut to correspond with the areas to be rayed, and the points turned back. For the ultra-violet rays the metal is also applicable; oiled muslin is likewise convenient, offering sufficient protection to sound tissue, the rays being absorbed by the yellow muslin.

The eyes of both operator and patient must especially be protected when exposed to either ultra-violet or X-rays. An exposure of a few seconds to the direct action of ultra-violet rays will provoke a very smart conjunctivitis or worse, and it must not be forgotten, also, that these rays are readily reflected by metal or even the skin itself. Large goggles afford a convenient protection, glass being impervious to both varieties of ray, but in the case of the ultra-violet it is safer to protect the patient's eyes with oiled muslin closely fitted to guard against reflected rays.

Where the skin is broken, ulcerated or crusted over, the affected areas and surrounding tissues should be kept in as clean and healthy condition as possible. Immediately after treatment the parts should be cleaned off with vaselin and a very thin layer of some emollient ointment spread upon fine gauze (or, better still, on sterilized linen as being less irritating and more readily removable); this being applied to the crusted or ulcerated patches alone,

carefully avoiding covering sound tissues, which should be kept dry and clean. This dressing may be changed twice or thrice daily, depending upon the amount of discharge. Where the discharge is slight, the dressing may remain twenty-four hours or more. Should the tissues become sodden at any time, the dressing should be discontinued until they recover their tone.

After experimenting with a number of applications, which proved more or less unsatisfactory and were discarded in turn, the preference was given to compound thuya ointment. The indications were for a bland, emollient, antiseptic preparation, of sufficient consistence to remain in close apposition to parts to which it was applied; something that would soften crusts, facilitate their removal and retard or prevent their reappearance, that would inhibit or antagonize the action of the bacillus and check extension of the disease, that would protect denuded surfaces, favor healthy granulation and cicatrization, be antiseptic in character while unirritating, readily absorbable and of such degree of consistence that while it could be spread without difficulty at all seasons in a thin layer, it would not be softened too freely by the heat of the body and flow over sound skin, but would keep the discharge and consequent crusts from the sound margins. Oil of thuya in vaselin (1-16) having afforded satisfaction as a dressing in some broken-down cases of epithelioma which were being rayed, was resorted to in the lupus cases and combined in the same proportion with an emollient ointment consisting of lanolin (oz. iii., dr. iii.), white vaselin (oz. v., dr. v.), white wax (oz. iiss), oil of pinus sylvestris (dr. iv.), oil of juniper (dr. i.).

If the discharge be very profuse, a dusting powder may replace the ointment until the discharge is under control. For this purpose boro-chloretone or bismuth-formic-iodide will be found convenient and efficacious, but should be discontinued as soon as practicable on account of the tendency to form hard crusts.

Resinol ointment will be found of service in combating the erythema of surrounding tissues. Lanolin is also useful for this purpose.

As between phototherapy and radiotherapy for lupus vulgaris, the former is to be preferred in cases in which it is applicable, but a combination of the two methods is to be commended.

In cases to which it is suited, phototherapy possesses the advantage of requiring a less extended course of treatment; small circumscribed patches may disappear after two or three vigorous exposures. Better cosmetic results can probably be obtained by phototherapy, the extent and degree of action is more under control and reaction is less prolonged. It is the preferable method for indurated marginal areas, such as the lobe of the ear or other parts liable to break down under vigorous X-raying, also

where tissues are thin, as the cheek and all other places where deep penetration is not required. For the eyelid it is the more commendable procedure, and the lid will protect the eye better from the effects of a short ultra-violet exposure—four minutes being sufficient—than from a longer and more penetrating X-ray exposure; also, there will be no fear of epilation of the lashes as would result from exposure to the X-rays, and there is the same recommendation with regard to the brow, lip, head or other parts on which there is hair. Phototherapy is also of great value in toning up broken-down tissue and promoting the healing of ulcerations.

On the other hand, radiotherapy is preferable when the area involved is extensive, as a larger portion can be exposed at one time with radiotherapy; also where greater penetration is required, as when the tissues are tumefied, hypertrophied or pigmented, as in these conditions the greater proportion of the ultra-violet rays will be absorbed and neutralized before reaching the seat of the disease, and where much tumefaction, hypertrophy or pigmentation occur in a course of phototherapy, the treatment should be changed to radiotherapy at once, or much valuable time may be lost. Radiotherapy is also more applicable where mucous membranes are involved, not easy of access to ultra-violet rays, such as the nasal mucous membrane.

Where there is fibrous or cicatricial tissue, this may sometimes be broken down by vigorous but judicious X-raying, which being accomplished, the rest may be left to phototherapy. Where there is ulceration, this may be stimulated by radiotherapy, and here again phototherapy resorted to if it is a suitable case.

Illustrative of these latter points the salient features of a couple of cases might be cited. In a man, aged seventy years, the disease had been present for twenty-five years, and had undergone all the classical treatment, applications innumerable, curetting, excision, galvano-puncture, *et al.* It was situated at the back of the neck, towards the shoulder, and was of ovoid shape, two and five-eighth inches in its longer diameter, one and one-half inches across, fibrous in character, and with a much depressed cicatrix running down the central portion, around which lupus was much in evidence. The sites of galvano-puncture were the only locations where recurrence had not taken place. Ten exposures to the ultra-violet rays alone, from ten to fifteen minutes each, and seven more with the static brush discharge, in addition, showed that progress would be slow. All but the fibrous tissue was then carefully screened, and X-rayed at close range—from four to six inches—on nine consecutive occasions for fifteen minutes each with a fairly high tube, following each treatment with the brush discharge to the surrounding parts. This caused the fibrous tissue to soften and break down, and after thirty-six

further exposures to ultra-violet rays all ulcerated patches had healed, leaving a surface almost level, very unlike the former depression. Some further ultra-violet raying was done as a precautionary measure, as the skin was very thin where subject to pressure by the neck-band of the shirt, and showed proneness to chafe.

In another case, a man aged fifty-five years, the lupus was of fifteen years' duration involving portions of the forehead, brow, both upper and lower lid, cheek, ear, and all of the temple, running well into the hair; an area four and a half inches vertically and two and a half inches across, with all these tissues and those underlying immovably adherent to the bones beneath, inability to open the jaws wide enough to eat a banana, and marked flattening of the prominences of the brow and cheek, denoting bone involvement. There was a crusted, ulcerated portion, measuring three inches vertically, one and a half inches across the narrowest portion, and two inches across the widest. The ulcerated portion only was exposed to the X-rays for fifteen minutes each on ten succeeding days, the static brush discharge being used on the surrounding parts meanwhile. Twenty-four exposures to the ultra-violet rays followed; then the patient was allowed to return home, and directed to continue a daily application of the ung. thuya eo., the ulcer having become much smaller. Four weeks later the ulcer was one and fifteen-sixteenth inches vertically, one-half inch across the top, five-sixteenth inches across the centre, and three-quarter inches across the bottom. After thirty-six more ultra-violet exposures, all ulceration was completely healed, and the skin and underlying tissues freely movable, except a small portion over the malar prominence and outer part of the lower lid.

Cases may arise in which the X-ray, after a prolonged course of treatment, seems to lose its former good effect, or sometimes the parts become abnormally sensitive to it. In the event of either of these contingencies, recourse may be had to the ultra-violet ray for a time until the parts recover their tone, when a return may be made to the X-ray.

In some patients the reaction after exposure to ultra-violet rays, even for very short periods, is so exaggerated that this form of treatment cannot be employed. Such cases should be exposed cautiously to the X-ray.

In a case of long standing, which had been under the care of a great many physicians, and where a great many expedients had been resorted to in addition by the patient himself, the nose being the part involved, the X-rays effected a remarkable improvement for a time; then, seeming to lose all their efficacy and the case being at a standstill, more vigorous X-raying resulted in ray erythema. When this had passed off, an exposure to the ultra-violet rays of five minutes to each side of the nose, caused a very severe reaction, erythema extending over the cheeks and

eyelids, tumefaction of the tissues affected, very acute coryza, with burning sensation about the nostrils and upper lip, lachrymation and pain. An ultra-violet exposure of the back of the neck for eight minutes on the same occasion, to abort an incipient carbuncle, of which the patient had had a number, was eminently successful in attaining its object, but also resulted in blistering the neck quite extensively, as from a severe sunburn, and the patient declared that he preferred the disease to the cure in this case. The neck had never been X-rayed. In the same case the application of adrenalin chloride was attended with such discomfort, even in 1-10,000 strength, that it had to be discontinued; it also intensified both ultra-violet and X-ray action very greatly. This case did better when the X-ray was returned to, with short seances of eight minutes.

The advent of erysipelas in a part apparently cured, may start up fresh foci of the disease to greater vigor than formerly, and may cause the disease to spread and also to appear in parts hitherto free from it. In such cases the X-ray will be the preferable treatment.

The duration of exposure to either rays will depend largely upon the state of the skin, the size of the lupus, and the extent and degree of the reaction. Unless reaction is too pronounced, daily exposures are preferable. From three to ten minutes is the usual time for exposing one portion to the ultra-violet rays. X-ray exposures vary from eight to fifteen minutes with a fairly high tube not usually nearer than six inches from the part exposed. With the ultra-violet ray the lens of the lamp should be as near as possible to the part being treated.

When tissues are breaking down under X-raying, or erythema is becoming too marked, the brush discharge from the static machine is sometimes of assistance to restore tone.

In view of the fact that ultra-violet rays induce fluorescence, convert the oxygen of the air into ozone, cause chemical combination, give rise to oxidation and decomposition, possess a direct and vigorous bactericidal action, have a powerful effect upon capillary circulation, producing not a more transitory but a persisting dilatation of the capillary vessels, promoting osmosis, influencing nutrition and favoring absorption, is it too much to expect that "photolysis" and "photophoresis" may open up fields of research as yet comparatively unexplored, and may come to mean much to suffering humanity, dealing with the power of light, and more especially of the ultra-violet rays, to break up medicaments into elementary forms, or produce new combinations more absorbable, and to carry such into the system as ammunition in the battle against disease, thereby on the one hand assisting the therapeutic action of light, and on the other hand utilizing the lytic and phoretic action of light to aid the therapeutics of external and internal medication?

A CASE OF MALIGNANT ENDOCARDITIS IN A CHILD.

BY W. H. PEPLER, M.D., C.M., L.R.C.P. (LOND.).

Assistant Physician Toronto General Hospital, Pathologist Hospital for Sick Children, Toronto.

History.—J. H., aged eight years; sex, female; Canadian; family, unimportant. Previous: Had scarlet fever about three years ago, following which a severe attack of rheumatism. Has been troubled since with palpitation of the heart. Present: Has been ill for about three weeks with cold and general malaise. About five days ago, after some exposure, she became much worse. Some pain in the limbs, not in the joints, which was relieved by rubbing. Has had a severe cough; no expectoration. Some pain in the chest, especially on left side. On admittance to the Hospital for Sick Children, on January 8th, 1904, the temperature was 104 deg. F., pulse 138, respiration 38.

Examination.—Patient lying on her back in an easy attitude; cheeks flushed; eyes bright, expression anxious; accessory muscles of respiration at work; lips dry and glazed, of dusky hue; tongue coated; breath foul. Heart: Area of visible pulsation very large, from sternum to an inch beyond the nipple line; apex beat, one and one-half inches beyond nipple in sixth interspace; thrill to be felt over pericardium; percussion fails to define much hypertrophy, save that apex is displaced, as above mentioned. Auscultation: A double murmur is to be heard all over heart, transmitted to back, and heard loudest over the apex. Lungs: Left side of chest larger than right which shows very limited movement and some retraction of lower interspaces on inspiration. Vocal fremitus increased on right side, where also some tactile fremitus can be felt after patient coughs. Percussion: Some flatness, but no absolute dullness to be made out on left side; right side is dull as high as the upper border of the middle lobe, and above this line there is hyper-resonance. Auscultation: Right side, upper lobe gives crepitant râles. At the lower border of the lower lobe are to be heard fine crackling râles, occasionally; between these areas all the sounds are diminished and distant. Left side: upper lobe, respiratory murmur is harsh; over the lower lobe bronchial breathing is heard, but no râles.

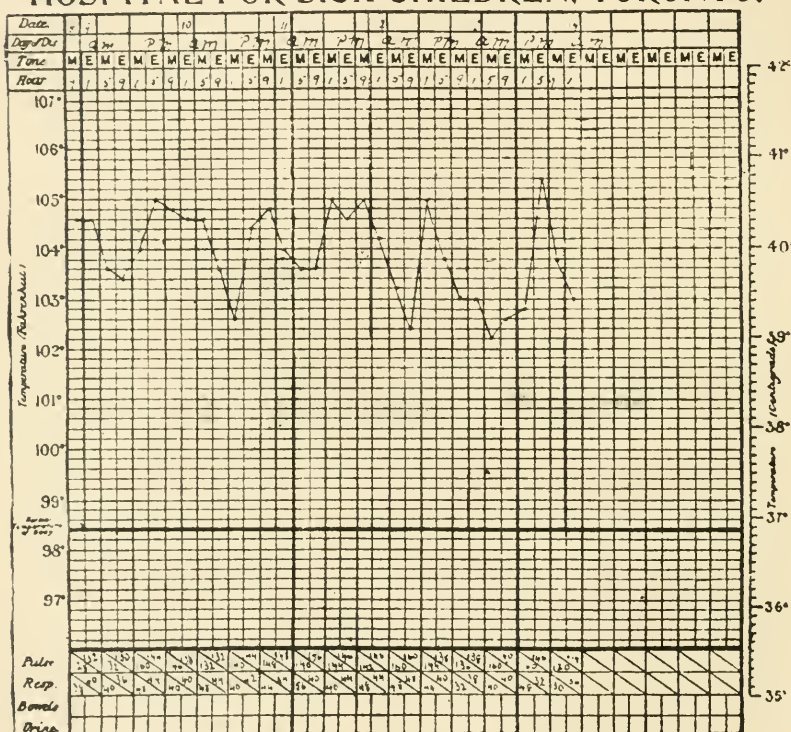
January 10th.—Physical signs as before. Hypodermic needle inserted in the mid-axillary line in seventh interspace, with negative results.

January 11th.—Left side of chest immobile at full inspiration; vocal fremitus is rather less; dullness on percussion as high as third interspace in anterior axillary line; coarse bubbling râles can be heard over the lower left lobe behind, over the lower part of the upper lobe bronchial breathing is very marked.

January 12th.—Patient very much prostrated; lower lip excoriated; pulse frequently becomes irregular; breathing difficult and labored, but cyanosis is slight.

January 13th.—Color has become waxen; breath very foul; cyanosis more marked; abdomen is distended; some delirium and restlessness; carphologia and subsultus tendinum, varying with a semi-comatose condition; pulse weak and very irregular; inhalations of oxygen were used for three minutes every half hour, and have improved condition somewhat. Patient has been lying on

HOSPITAL FOR SICK CHILDREN, TORONTO.



If it be desirable to take the temperature more frequently than morning and evening, the hours should be recorded, and a vertical line drawn in red at the end of each day.

left side for last twenty-four hours, and complained very much when disturbed. Examination of heart shows a dilatation of right side, dulness extending only a finger's breadth from the right sternal margin.

January 14th.—Patient's condition worse, symptoms of intoxication being more marked. Patient had a series of chills; temperature went up to 105.2 deg.; sponging proved ineffectual; patient gradually became weaker, and died at 10 a.m.

Autopsy.—Six hours after death; body well developed and nourished; rigor mortis and post-mortem staining slight. On

section—Thorax: No pleural adhesions; both pleural cavities contained a considerable quantity of sero-purulent fluid: right side, six ozs.; left side, twelve ozs. Right lung: Filled cavity fairly well, was soft and flabby, pitting on pressure, crepitates and floats; on section, smooth, darker than normal, showing hyperemia throughout, and edema of lower lobe; small sections taken from different areas readily float; no consolidated areas visible; bronchi normal. Left lung: Considerably collapsed, and pressed upwards and backwards; crepitates throughout, though less than right; responds to hydrostatic test; bronchi normal. Heart: Pericardium non-adherent; cavity contains about four ozs. of sero-sanguino-purulent fluid; both surfaces markedly roughened, dull and dark in appearance; heart weighs four and a half ozs., is oversized for child of eight years, but is firm. On section, right side muscle appears paler, but not thicker than normal; endocardium shows no signs of inflammation, no dilatation of cavities; pulmonary and tricuspid valves competent and natural in appearance; left side, wall of ventricle hypertrophied, three-quarters of an inch thick; endocardium healthy; wall of left auricle slightly thickened; posterior and outer parts completely covered with extensive verrucose excrescences, greyish-white in color, quite firm in organization. Mitral valve admits three fingers; cusps show large vegetations completely covering them, and extending down the tendinous cords for a short distance; no ulcerative process visible microscopically; the valve is thickened, but no tearing nor perforation. Aortic valve looks healthy and competent. Coronary and other vessels look normal. Liver: Somewhat enlarged, pale, firm. Gall-bladder full and duct patent. Spleen: Enlarged, seven inches by three and a half inches, looks hyperemic and softened; mesenteric glands not enlarged. Kidneys: right shows stellate hemorrhages in cortex; capsule non-adherent; cortex not thickened. Left—in lower quarter is a fibrous scar, sclerotic and white, extending through cortex and medulla, probably an old infarction. No metastatic abscesses nor emboli found. Other organs and structures appear healthy.

Microscopic Examination.—Section of vegetation from left auricular wall shows inflamed connective tissue, round cell infiltration and granulation tissue, some organized fibrin.

Bacteriologic Examination.—Cultures from the pericardial fluid show the diplococcus pneumoniae. Heart blood does not show anything.

Features of interest in this case are: (a) The extensive mural distribution of the vegetations, which alone mark it as malignant; (b) the mural excrescences being limited to the left auricle; (c) the pure pneumococcal infection; (d) the enlarged spleen; (e) the severe pericarditis and pleuritis, with sero-purulent effusion as complications; (f) the absence of any apparent preceding or accompanying pneumonitis; (g) the absence of emboli.

Regarding the distribution of the vegetations, we all agree, I think, that the presence of extensive vegetations on the cavity endometrium always means malignancy. Both Osler and Holt mention the greater frequency of the involvement of the left ventricle over any other surface in mural endocarditis.

Of thirty-three cases of malignant endocarditis reported by Weichelbaum, seven showed a pure pneumococcic infection. Twenty-five per cent. of Osler's cases were from that source.

Traube says endocarditis from pneumococcic infection is short in duration, less fatal, temperature continuous, and embolisms rare.

Viewed from a pathological standpoint, a severe verrucose endocarditis, due to pneumococcic infection, may be just as malignant as a severe ulcerative process.

Henry L. Elsner, Professor of Medicine, Syracuse University Medical College, reports a case of extensive mural endocarditis, of pneumococcic infection, in which there were no symptoms nor signs of pneumonia, and makes this statement, that endocarditis following or accompanying pneumonia is rather rare.

Of 254 cases of pneumonia seen in the Tübingen clinic (Henke Virchow's Archiv., Bd. clxiii., No. i.) but one was observed to have endocarditis.

We know that the endocarditis of pneumonia has special anatomic peculiarities, viz., the right side of the heart is attacked with an unusual degree of frequency, and the aortic more frequently than the mitral valve.

Sandford Blum, Professor of Diseases of Children, University of California, reviews the subject of the etiology of endocarditis, with especial reference to bacterial agencies, and sums up his thesis thus: 1. Bacterial agencies are active in the cause. 2. The presence of bacteria in the circulation is not sufficient cause alone; a *locus minoris resistentiae* must exist (experiments of inoculation, in which the endocarditis is not wounded, give negative results, but when you wound the endocardium, as by puncturing the aortic valves, through the left carotid artery, plus inoculation, you can produce an infective endocarditis). 3. Not all bacteria cause endocarditis, but in general those which are pathogenic for the individual. 4. Congenital and infantile, due to defective development. 5. Endocarditis due to mechanical or chemical insults.

Dr. Glynn, in his Lunlein lectures at the Royal College of Physicians, London, 1903, speaks of the great frequency of enlarged spleens in his cases of endocarditis and looks on this as a very valuable aid in diagnosis.

Osler says the diagnosis of the condition rests on physical signs that are notoriously uncertain.

The examination of the blood is important, and should be made in all cases where infection is suspected.

COUGHS AND COLDS.

BY WILLIAM F. WAUGH, M.D., CHICAGO, ILL.

THE digestive system is taking a well-earned rest, after its painful experiences of the past summer. Many a little grave is filled by the patients of the men who "do not believe in intestinal antiseptics," and who "do not know that the sulphocarbolates are used internally." Those who rely upon chalk mixture, rhubarb, calomel, bismuth, tannin mixtures, Hope's paregoric, and those who "are going to try Haller's acid next summer," have made their usual average, saving all but the bad cases, and winning just enough success to encourage them in persisting in the old way. The men who do not know it all, but are willing to try a new idea, have tested the sulphocarbolates and the alkaloïds, and have scored heavily in the race for life and for success. They have renewed their faith in their art, and once more believe that the doctor's profession is a God-sent one, and that they can do something else besides mutilate their patients.

Now we have the respiratory mucosa to deal with. Who was it said the doctor goes forth to visit his suffering mucous membranes? He was right, for a very large percentage of our work is with these tissues.

Is there any malady that has more remedies than a common cold, or is more universally mistreated? Nearly everyone recommends treatment involving the swallowing of much water, and this fills the blood-vessels to repletion, and they discharge their surplus into the channels offering the least resistance, and these are the partially paralyzed vessels of the inflaming respiratory tract.

They must be partially paralyzed, for the vasomotors lose their tonicity and permit more blood to enter than is normal. Why not squeeze out this surplus by giving strychnine up to its full effect, till the vasomotors are restored to normal tone? But if there is too much blood here, there must be too little somewhere else, as there is nothing to indicate that there is more blood in the body than the normal quantity. But this means that some other vessels are partly empty, are contracted—that is, their vasomotor contractors are spastic. Hence we may reach the difficulty in another way, by relaxing these spastic vessels and permitting the surplus blood to flow out of the distended pituitary tissues. Here is where our hot foot-baths, hot drinks, and depressing remedies come in. We may combine these two principles, by adding to our strychnine either aconitine or veratrine, selecting

the latter if the elimination is faulty. Burggraave said that both these processes could be stimulated at the same time, the spastic cells or fibres taking up the aconitine and the patetic fibres absorbing the strychnine, just as bone cells absorb lime and nerve cells phosphorus, both presented to them by the blood. Is there any more difficulty in conceding to the cells the power of taking up such drugs as they require to restore physiologic balance, any more than the power of taking up such food as they require for the same purpose? Just what is the difference between foods and drugs, if either is needed to restore the equilibrium we term health? Try it, anyhow; giving strychnine arsenate, gr. 1-134, and amorphous aconitine, same dose, and repeating every fifteen minutes till the effects of one or the other are manifest, in slowing pulse or increased arterial tension. If the patient is below par, add digitalin Germanic (really digitalein), gr. 1-67, to reinforce the strychnine; or if the pulse is full and fast, the emunctories closed, add veratrine, gr. 1-134, till the occurrence of slight nausea or gastric burning indicates that enough has been taken. By this time the "cold" will be a thing of the past, and the doctor will have learned, if he did not know it before, what truth is in Burggraave's theory as to the simultaneous action of apparently antagonistic remedies.

More than once we have spoken of faulty elimination in connection with colds. Were we to desire a cold, we would eat a Thanksgiving dinner, and shut up the eliminative doors. Don't try it; but the next case you get, stop all food, and especially all drink, and eliminate, sweep out the alimentary tract, open up the skin with pilocarpine, or the kidneys with bryonin or apocynin, or both by veratrine; and the phenomenon of a disease "jugulated" will be demonstrated. The old woman—it must have been one—who advised to "feed a cold," must have considered the cold's interests, but not the patient's. The absolute stoppage of all food and drink—we mean water, too—gives the best results when trying to abort an attack.

The greatest of remedies for a tight dry cough is to be found in *ipecacuanha*—not the crude drug, which contains the acrid emetic principle, *cepheline*, but the milder *emetine*, which is also an eliminant and acts on the liver more effectually even than does *calomel*. Give gr. 3-67 to an adult every half hour till the secretion becomes thin and free, and the hyperemia of the bronchi and larynx has subsided. If nausea supervenes, lessen the dose, but continue the remedy. It has no known equal. By leaving out the *cepheline* you get the maximum effect on the respiratory mucosa with the minimum of nausea. In the rare cases, when there is an idiosyncrasy against all forms of *ipecac*, even in minute doses, we may fall back on *apomorphine*. This is not

nauseant when taken by the stomach; it acts even more powerfully than emetine in stimulating the bronchial mucous secretion. Nevertheless, emetine is to be preferred for routine use, because apomorphine is more costly, and sometimes, and always in large doses, acts as a depressant, which emetine never does. Apomorphine may be given in doses of gr. 1-67 every quarter hour, or up to gr. 1-10, with impunity and benefit.

If the patient is robust and there is some fever, lobelin is perhaps a safer and more effective remedy. Give gr. 1-12 to 1-4 every fifteen minutes in hot water, till nausea or diarrhea occurs; and the crescent inflammation will be found to have thought better of it, and retired to wait a more propitious season. This is a remedy that has been shunned by the regular profession, principally because it was a favorite with Samuel Thompson. In his hands it was shown to possess great powers for good, if well directed, and for evil, if incautiously administered by the ignorant. Such considerations do not weigh with the physician who desires all the good he can secure in his work; and in lobelin he will find a decided value, in combating incipient inflammations with excited circulation and unimpaired strength. It is a most depressing emetic, with a feeling of wretchedness that makes it far from popular with the patient; and even though the eclectics may be right in asserting that a remarkable sense of well-being follows the subsidence of the emesis, it is hardly probable that this outweighs the distress. For that matter, a similar sense of euphoria follows all emetics and cathartics when truly indicated.

In spite of Murrell's assertion that codeine is simply a "little morphine," only differing in the dose, we have found codeine a better sedative for irritative coughs and less disposed to interfere with the digestion and elimination than morphine, and just as good, if not superior, to the much vaunted heroin. In doses of gr. 1-12 for an adult, codeine is the most effective agent known to soothe such a cough. It acts well with emetine, adding camphor monobromide if the spasmodic element is manifest. Emetine, gr. 3-67, codeine, gr. 1-12, and camphor monobromide, gr. 1-2, repeated every ten minutes, forms an excellent combination. But we are averse to opiates in all forms, and always persuade our patients to await the slower but more desirable effects of emetine.

No good commander neglects the accessories, however much faith he places in his heavy artillery; and we always see to the hot mustard foot-baths, the confinement in a warm, well air-moistened room, steam inhalations, quiet, abstinence from the use of the voice, the use of rubefacient liniments to the chest, and over the pneumogastric nerve in the neck if irritated notably, and such protective astringents as hydrastine, before the patient is per-

mitted to return to the open air—hydrastine, because it contracts the capillaries, which are left weak and atonic, and by its use we guard against that most dangerous thing, a relapsing broncho-pneumonia.

What has been said anent the causation of catarrhs by over-eating, may be taken as a hint of the importance of keeping the bowels clear. If we limit the quantity of ingesta so as to keep the blood-vessels from being distended, we may add to the effect by draining away some of the serum, and also stop the absorption of toxins from the alimentary canal, by a few doses of saline laxatives. Blood laden with toxins must be irritant to a mucous membrane hyperemic with beginning inflammation; and we thus remove one element of the causation. Whatever may be our method of treatment, it is more effective for keeping the bowels clear and aseptic.

An agent whose place is universally mistaken is cubeb. This has been long employed as a succedaneum for copaiba, but its action is radically different. Copaiba dries up mucous secretions, pathologic and physiologic. It is of considerable value in the declining stages of a bronchitis or other respiratory catarrh, when there is a relaxed membrane and free secretion. Here it will often restore the affected membrane to a healthy state, when if administered earlier in the attack will do harm. This has given copaiba some repute with the druggist and laity, as a remedy for colds, "when everything else had failed." But the evil repute of this remedy, and its still more evil effects on the stomach, render it desirable to replace it by a more modern agent, if possible. This we find in hydrastine, which, given in doses of gr. 3-67 every hour, will dry up the secretion and restore the appetite at the same time. It contracts the capillaries, and if berberine be added to contract the relaxed connective tissue, we have one of those exact and powerful therapeutic applications familiar to the employer of active-principle therapy—and to any one else. Give berberine in doses twice larger than hydrastine.

But we have wandered from our subject—cubeb. This does not dry like copaiba, but rather resembles emetine in facilitating secretion—it loosens a mucous discharge. If copaiba be given too soon, while the membrane is still hyperemic, it causes an unpleasant sense of heat and tightness. Cubeb instantly relieves this, hence the patient praises it. Moreover, it tends to restore a healthy secretion in place of a pathologic one, and promotes a cure. The ordinary preparations are uncertain and feeble, but cubeb, in doses of gr. 1-12 every hour, answers well.

Sometimes there is need of gently and cautiously stimulating the vitality of the diseased tissues, to enable them to throw off the malady more speedily, and for this purpose, sanguinarine,

gr. 1-67 every hour or two, does excellently. This is also the remedy for bronchorrhea in the aged or infants, when there is abundant secretion and deficient sensibility, so that secretions collect to a dangerous extent. Sanguinarine makes the patient cough harder and expel the mucus. The dose for an adult may be averaged at gr. 1-12 every two hours.

To the student of therapeutics there is something peculiarly attractive in this fitting of the expectorant remedies to the pathologic condition for which each is suited, instead of commingling them heterogeneously, as is too often the custom. There are many diverse conditions met in these maladies. No two of the expectorant remedies have exactly the same action or clinical application. It is not at all difficult to distinguish these differences, nor to fit the remedies to each. It gives a desirable precision to one's therapeutics, a certainty to his prognosis, and perhaps it tends, like active-principle medication in general, to a quite unaccustomed and "unscientific" positiveness of assertion. At least, I note in the reviews of my last book (*"Alkaloidal Therapeutics"*) that this positiveness is adverted to with disapprobation. Well, I cannot help it—and I do not wish to help it. After practising for a third of a century, mostly in the old way, it is such a relief to the mind to be able to say a thing positively, that the temptation is irresistible. Positive facts should be positively stated. The Decalogue says, "Thou shalt not bear false witness." This seems on the whole preferable to saying: "It has sometimes appeared to us that under the circumstances it might, at least at times, be advisable to approximate somewhat in the direction of the supposedly veracious."

Most of our knowledge is relative, tentative; we as a rule advance our propositions with the underlying qualification that the matter is presented as being what we then believe to be the best explanation in harmony with the prevailing theories, and the other beliefs of men. When some such revolution as the evolution theory arises, and appears to us to be the most reasonable explanation of phenomena, we must rearrange our ideas to harmonize therewith. When we say that cubebⁿ loosens expectoration, we mean that this result has followed the administration of possibly twenty thousand granules of this agent we have used in practice. That seems to us sufficient ground for a pretty positive statement. Were we to use the cubeb berries, in any variable degree of decomposition, we might be excused for saying that maybe they dry up secretion, or maybe they loosen it.

THE MAMMA: ITS PHYSIOLOGICAL PURPOSES.*

BY THOMAS H. MANLEY, M.D., NEW YORK.

If we appreciated the treatment of the numerous pathological conditions of the female breast with a more complete knowledge of all its functions, purposes, and of its complex structures, we would hesitate longer, and more frequently resort to conservative methods, rather than hastily resort to its total sacrifice by amputation in various diseased conditions of it.

Those large, projecting, pyramidal, pectoral bodies in the adult are at once an integral part of the sexual system, besides serving an important cosmetic purpose, providing protection to the anterior wall of the thorax and supplying nutriment to the new-born.

It is the only secreting organ calling for a vacuum to drain it, and discharging directly on the surface.

The description of its structures by nearly all anatomists is faulty, inadequate and misleading.

Our faith in the teachings of writers on anatomy is so settled that to even question their accuracy has been regarded as a stupid effrontery.

We have all been taught that the breast is a "gland with a capsule."

Testut denies that it is a gland, but an aggregation of widely scattered, separate, secreting lobes, each one opening on the surface of the mamilla independent of the other.

The mamma has an excessive fibrous development in its parenchyma, the membrana cribrosa, without any definite organization or arrangement, stretching from the armpit to the sternum and from the clavicle, to blend below with the abdominal aponeurosis; but it constitutes no capsule, and is so intermingled with the panniculus adiposus, the secreting lobes and lobules, as well as with the overlying integument, that its complete separation is impossible. The adipose tissue of the breast is of a deep yellow color; its proportion varies, but in corpulent individuals it constitutes the main volume.

It lies in a deep layer over the secreting structures; fringes and corpuscles of it everywhere permeate the parenchyma.

There are four sets of independent secreting glands in the mammary body. First, the sudoriparous and sebaceous, in their overlying adherent integument; second, the sebaceous or oleaginous, in the tissues of the mamilla; third, diminutive,

*An abstract of essay read at Meeting of Mississippi Valley Medical Association, held in Cincinnati, Ohio, Oct. 14, 1904.

tributaries in the areola; fourth, the lobular, isolated lobes of the mamma. The latter drain into the galactiferous ducts, which open separately on to the surface of the mamilla.

The milk ducts pursue a radiating direction as they extend inward and break up in canaliculi in the lobules.

A critical dissection of the breast during the function of lactation will display the lactiferous ducts varying widely in diameter and length, just as we will find some of the lobes diminutive and others of considerable volume. The nipple is made up of white and yellow elastic tissue, galactiferous tubes having a cutaneous investment. The nipple contains no angiomatic tissue nor muscle fibre, and hence, strictly speaking, it is not an erectile organ; it is sometimes rudimentary, and often deformed through congenital or acquired conditions.

The base of the nipple is guarded by a circular disc of integument of a remarkable histological composition, the areola. This, like the nipple, in its deeper layers is continuous with the fibrous felting of the mamma.

The principal vascular supply to the breast is by the internal mammary artery, while its larger veins drain into the axillary trunk.

The most notable feature in connection with its nerve supply is the preponderant influence on the sympathetic; no direct connection can be traced in its supply from the cerebro-spinal system with that of the generative branches from below.

Lymph nodes are lodged in groups at the outer, upper and inner aspect of the breast, but there is very little lymphoid tissue in the organ itself. Zappey depicts a most elaborate arborescent display of lymph vessels in the overlying integument, but several independent investigators have been unable to verify their presence by any description of injection. There can be scarcely any doubt but the importance of the lymph ganglia has been greatly exaggerated in their relation to function, etc., in the mamma.

The "modern cleaning out," radical operation is based on the unproven assumption that they are the *fons et origo mali* of all serious mammary affections.

In function, the mamma is at once a duct and a ductless gland, *i.e.*, it has an external and an internal secretion. We have not isolated in its physiological state its internal secretion, nor either have we that of the thyroid, the spleen, or supra-renal bodies.

In the child or the maiden, we find its elements as but shadowy and ill-defined; its acinous arrangement can be scarcely outlined.

In the non-child-bearing, and during the intervals of lactation, it is essentially a *ductless* gland; it discharges no secretion,

but rather absorbs it, from which we must assume that the maintenance of the new-born is but one of the functions of the female mamma.

In two instances of double amputation of the breast coming under my observation in young women for cystic disease, both later married, but neither ever conceived. The complete amputation of both breasts is well known to produce most profound psychological impression, and often when but one is totally removed.

The advent of nearly every variety of organic lesion here is quite invariably ushered in by depression of spirits and spells of distressing melancholy.

Beatson's operation has clearly demonstrated the intimate relations subsisting between the breast and the ovaries. In monorchids, in cryptorchids, or hermaphroditism—imperfect development of the external male genitals—gynecomastia, or very large development of the mammae, is a most conspicuous figure.

CONCLUSION.

The mamma is a highly organized, and, structurally, a most complex organ.

Its functions are manifold. It is an essential and integral part of the generative system. Intermittent in function, like the testes, total ablation, like double castration, makes its impress on the sensorium.

Very frequently degenerative or pathological changes begin in a single isolated lobe, about twenty of which are in each breast. In all non-malignant affections, radical measures should be limited as far as possible to the affected area or lobe.

It is only in malignant disease of a progressive type, and life is imperilled, that total sacrifice of the breast is justified.

Inasmuch as the functions and purposes of the axillary lymph ganglia are yet imperfectly understood, and their removal quite invariably enhances the risks of operation, involves a wide mutilation of the chest walls, and always leaves more or less impediment in shoulder action, or even at times a painful tumefied limb, it is only as an extreme and exceptional measure that their complete extirpation should be practiced.

Proceedings of Societies.

CLINICAL SOCIETY OF THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

A STATED meeting of the above society was held November 7th, 1904. The President, Dr. Daniel S. Dougherty, occupied the chair. The following interesting specimens and papers were presented:

Specimen of Gangrenous Appendix.—Dr. J. A. Robertson showed an appendix which had been removed from a patient the previous week. During the afternoon he had severe gastric pains and vomiting. At ten o'clock the same evening a diagnosis of appendicitis was made, based on the tenderness at McBurney's point at the ventrix. Slight intestinal obstruction was also suspected, as the vomiting persisted, and toward morning became fecal in character. The temperature was 103.8 deg., followed by collapse the next morning, and during this collapse the operation was performed, the appendix being removed about 9 a.m. Examination of the appendix revealed the fact that it was gangrenous near the tip, and midway there was a stricture. Opposite the point of stricture were two gangrenous spots, just ready to break through. This specimen demonstrated the rapid development of the disease, and emphasized the need for early operation. The speaker had seen seven consecutive cases of gangrenous appendicitis within the past two years, and had operated on them, with but one fatal result, and in that case he had hesitated more than twenty-four hours after the appearance of symptoms before operation. In his opinion, operation should be performed during the first twenty-four hours, or not at all.

Dr. A. Lyle opened the discussion. He said that the point he thought of greatest importance was the sudden drop of temperature. Gangrenous appendicitis can almost always be diagnosed by this sudden drop of temperature. Many physicians might interpret this as a sign that the patient was on the road to convalescence and postpone operation, and the case would probably result fatally. In the suppurative type of appendicitis, the temperature continues to rise slowly and does not drop as suddenly.

Dr. B. H. Wells said that he had seen this patient in consultation with Dr. Robertson, and an important feature, not men-

tioned by the first speaker, was the sudden cessation of pain. The temperature in appendicitis cases he thought a very irregular guide, as is the pain, or, in fact, any single symptom. The patient may have normal or subnormal temperature and normal or very slow pulse, but if the pain is severe and then suddenly stops, it is well to proceed carefully. The speaker had examined many cases under these circumstances, and often found extensive gangrenous appendix and intestines.

Dr. M. Packard said that in his opinion from the standpoint of diagnosis it was immaterial how the temperature stood, but the pulse was an important factor. If the patient has a rapid pulse, with a normal or subnormal temperature, and a pulse of 100 and a temperature of 98.6 or even 98, operation should be performed. Another point mentioned by Mannenberg, and substantiated by Nothnagel as important in the differential diagnosis of appendicitis, is that of the second pulmonary sound of the heart, which is usually accentuated in appendicitis. Mannenberg reports this symptom in 170 out of 200 cases of appendicitis which he examined.

Dr. Robertson, in closing the discussion, said that at the operation it was found that the complication which had been suspected was found to be present. About eighteen inches from the appendix the small intestine was strangulated and twisted; and the mesentery was twisted throughout, and for a few minutes we debated whether it would be wise to resect this portion of the intestine, but Dr. Wells suggested that it be closed.

Specimens of Tubal Pregnancy.—Dr. L. J. Ladinski reported three cases of tubal pregnancy occurring in his practice during an interval of twelve days, and showed the specimens removed from these patients. The first patient had been bleeding from the uterus for four or five days, but the discharge had disappeared the day before the speaker saw the patient. Temperature was normal, pulse 110. Examination revealed a somewhat enlarged uterus, a characteristically enlarged tube, tender and sensitive to the touch. No bleeding from the uterus, however. A diagnosis of tubal pregnancy was made and operation advised. The following day the uterus was curetted and abdomen opened. There was free blood in the peritoneal cavity. The enlarged tube, with the fimbriated extremity very much dilated, and presenting a large blood clot, from which hemorrhage took place, was removed. This was a case, therefore, of tubal abortion. The tube might have been saved, but as the attachment of the sac was close to the uterine end, it was not deemed wise to do it. The patient left the hospital nineteen days after operation.

The second patient was twenty-three years old. On the day previous to her admission to the hospital she had been taken with

a sudden, sharp, stabbing pain in the lower abdomen on the right side. With the onset of the attack she had a hemorrhage from the uterus. It was not time for her menstrual period, as she claimed to have menstruated only three weeks before. She felt dizzy, cold and extremely weak. Patient denied any possibility of pregnancy. Operation was performed under ether, the uterus being curetted. Upon incising into the peritoneal cavity, free blood welled out. The right tube was found very much elongated, and the gravid sac, with the amniotic sac unruptured, was found attached to the fimbriated extremity and external to it, and was removed. The left ovary presented a cyst the size of a hen's egg, to which the gravid sac and distal end of the right tube had evidently been attached, and was separated on manipulation before opening the peritoneal cavity. This ovary was removed. The distal end of the tube, which was found closed, was opened and everted. The appendix was removed and the wound closed without drainage. The patient made a good recovery.

The third patient complained of a sudden, sharp onset of pain, with bleeding from the uterus which lasted for about twenty days. Examination revealed a tense, tender, elastic mass bulging into the left lateral fornix of the vagina. Uterus slightly to the right of the median line. Patient absolutely denies any possibility of pregnancy. A diagnosis of tubal pregnancy was made, the uterus was curetted and the abdomen opened. Free blood was found upon opening the peritoneal cavity. The left tube was much distended, with clots, and ruptured. The left tube was removed, including the left ovary, and the abdominal wound was closed in four layers, without drainage. The patient made an excellent convalescence.

Dr. Wells opened the discussion of these cases. He said that in extra-uterine pregnancy hemorrhage is usually attributed to rupture, while in reality it often occurs previous to rupture, and is not necessarily accompanied by this latter symptom. The ovum is expanded inside the tube, and the villi grow into the walls of the tube, and after a time grow straight through. The blood pressure causes the tube to sweat blood from the little ends of the villi. The same process makes the wall of the tube very weak, and the ovum is growing inside, and when it comes across a naturally large blood-vessel, hemorrhage is apt to follow.

A Case for Diagnosis.—Dr. M. Packard reported the case of a man who presented himself at the clinic about four weeks ago with the following history: Family history and previous history good. His present history began about nine months ago, with gradual difficulty in swallowing. The dysphagia became so extreme that it was impossible to take solid food of any kind. On several occasions he vomited blood, which was always of a

bright red and never of a chocolate nature. He lost in weight as much as thirty pounds. Naturally, with this history, we suspected a neoplasm of the esophagus or cardiac end of the stomach. We passed an esophageal sound, which was not restricted at any portion of the esophagus, but on removal brought up about three drams of pure blood. The stomach was normal in size, but on account of the bleeding a test examination was valueless. Liver and abdomen were normal. The heart sounds were all feeble, but there was a relative accentuation of the second aortic sound. There was no burring or thrill. His blood examination showed 5,200,000 red, 100 per cent. hemoglobin, 7,600 whites, showing the blood absolutely normal, and ruling out with a positive degree of certainty malignancy, and especially of the stomach. His arteries were athermctic, and with this history the diagnosis pointed either to varicose veins of the esophagus or ulceration of the esophagus, due to arterio-sclerosis.

Dr. Burtenshaw stated that Dr. Packard, in connection with the blood examination, said that the normal condition of the blood proved conclusively that there was no carcinoma. In the speaker's opinion, the blood examination alone was not conclusive proof that no malignancy or inflammatory condition was to be anticipated.

Dr. Packard, in closing the discussion, said that he agreed with the last speaker that a normal blood examination alone was not conclusive proof of the absence of malignancy, but when a patient's blood gave a red blood cell count of over five million blood cells, and 100 per cent. hemoglobin, it is safe to assume that carcinoma is not present. In carcinoma there is usually a secondary anemia, and the hemoglobin of the red blood cells becomes polluted.

Epithelioma of Vulva.—Dr. Brooks H. Wells reported two cases of epithelioma of the vulva which had come under his observation, and presented drawings and photographs to illustrate them. He said that primary epithelioma of the vulva is rare, occurring in only about three per cent. of the cases of cancer of the genital tract. Not much is known definitely of the predisposing causes. Long-continued irritation undoubtedly increases the chance of its appearance. Cancer may invade any portion of the skin of the vulva and spread outward in the direction of the lymph streams. Histologically, it usually gives the picture of a squamous-celled epithelioma, except when it invades the vulvo-vaginal gland, when we find the cylindrical-celled or adeno-carcinoma.

The treatment of cancer of the vulva should be early and radical excision, together with excision of the superficial inguinal glands on both sides. Prognosis as to permanence of relief is bad,

as after a variable time the disease nearly always returns. In inoperable cases, morphia, given freely to quiet pain, scrupulous cleanliness with alcohol dressings to minimize odor, and at times partial operations to remove sloughy or hemorrhagic portions of the new growth, with such other measures as may be demanded in the particular case, to secure the least discomfort, should be resorted to.

The first case was a patient, aged 40, multipara, referred to the speaker for diagnosis. She was stout, florid and well, except for a peculiar spot which had been present for several months on the left side of the vulva, which persistently itched, and had been pronounced a chancre by several physicians. Inspection showed on the upper part of the left labium majus an area of somewhat thickened skin, thickly sprinkled with fine whitish scales. Within this area were two insensitive, round, slightly elevated, firm, flat masses, movable with the skin upon the underlying tissues, having rounded, whitish edges, smooth, slightly moist, glistening surfaces of a copper-red color, and which in all particulars resembled chancre. Careful palpation showed slight, hard, painless induration of the inguinal glands on both sides. Syphilis being apparently excluded, owing to the high moral character of the patient and her husband, and the absence of all history, a diagnosis of epithelioma was made and excision advised. This was done a few days later, by an incision which went wide of the diseased area, and deeply removing the whole of the left side of the vulva. The patient and her physician would not consent to the removal of the inguinal glands. The wound healed per primam. The specimen was taken to a well-known pathologist for examination. He looked at it and said a fine chancre had been removed. Examination of the hardened tissues, however, proved it to be a typical epithelioma. The patient was lost sight of for two years, at the end of which time she was seen with a mass of carcinoma in the left groin, and so weak that it was evident that she had but a few days to live.

The second patient came to the clinic, complaining that for eight months her womb had come down. Family history showed no constitutional taint of tuberculosis, rheumatism or cancer. She had no living children, but four miscarriages from traumatic causes between the third and sixth months. Examination revealed her to be in a normal condition above the pelvis, the uterus small and free and very easily movable. The vagina was large, the pelvic floor much relaxed, and when the woman stood up or strained, there was complete prolapses of vagina and uterus. The skin for an inch out from the mucocutaneous junction, at the lower half of the vulvar entrance was dry, somewhat thickened, slightly reddened, and covered with abundant whitish scales, the

condition resembling a chronic scaly eczema, and being accompanied by severe and persistent itching, which had been present for about fourteen years. There was no sugar or albumen present in the urine, and diabetes was excluded as a cause for the skin condition. Operation was strongly advised, but refused by the patient, who, as a temporary palliative, was shown how to support the uterus by a firm cotton cylinder, placed crosswise in the vagina, and was given a one-half per cent. salicylated Lassar's paste to apply to the diseased skin. About two and a half years later she again presented herself, complaining of a gradual loss of health and strength, itching of the vulva, with occasional periods of pain, and for three months an offensive discharge like bloody water. Examination showed a flattened papillary mass projecting one-quarter inch above the adjacent skin, and extending outwardly from a little within the mucocutaneous junction of the lower third of the vulva on the right side. On the opposite labium were a number of smaller similar papillary masses, apparently the result of contact inoculation. There was no apparent enlargement of the inguinal glands on either side. Patient entered the hospital, and the superficial inguinal glands on either side were removed, together with the new growth, the greater part of the skin, and the underlying fatty tissues and connective tissues of the vulva and of the lower vaginal mucosa. The wounds were closed with silk-worm gut and healed without infection, except at the lower vulvar portion, where some suppuration and granulation occurred. The specimen was sent to Dr. Jeffries for examination, and he pronounced it typical carcinoma.

Dr. J. H. Burtenshaw asked whether the bloody discharge in the second case was only from the growth or the skin covering it. He also asked whether there was any involvement whatever of the mucous membrane or the vaginal walls, and also whether the possible effects of the application of the X-rays, the Roentgen or the ultra-violet rays had been considered. He thought that in cases where the use of the knife was impracticable, especially, the rays should be at least tried.

Dr. L. J. Ladinski said he had operated on a patient for epithelioma of the vulva, and had removed the inguinal glands, which were only slightly enlarged, the operation having been performed early in the course of the disease. Recurrence in the pelvic glands had followed very quickly, and the patient's condition was much worse than at the time of the original attack. The speaker would hesitate to operate again under the same circumstances, and would first try the various forms of radiation.

Dr. Milton Franklin said that in case of epithelioma, as in all other cases of malignant growths, he would advise against using any of the radiations where the knife could be used. In

cases of epithelioma of the face, where a good cosmetic effect is desired, radiation may be preferable to the use of the knife. Epithelioma of the lower lip had never been cured by the rays, as far as the speaker could ascertain, and epithelioma of the pelvis seemed to be in the same class. After operation, however, the field from which the carcinoma has been removed should be X-rayed, as experience has demonstrated the value of this treatment.

The paper of the evening was read by Dr. Joseph Brown Cooke, and was entitled, "The Obstetrics of the Future." Dr. Cooke said he thought that in another quarter of a century the general method of procedure in obstetrics would be the routine induction of labor, at or near term, instead of the waiting policy of the present time, by which pregnancy is permitted to continue until labor is spontaneously ushered in. He said that, with the method at present in vogue, when the labor was normal, chloroform used to the obstetrical degree during the last hour or so, and the woman rallied promptly and enjoyed a normal puerperium, this was all that could be desired. It often happens, after labor begins, that the woman's suffering becomes so great, in spite of apparent uncomplicated delay in delivery, that the physician is obliged to interfere, and under complete anesthesia discovers for the first time a previously unrecognized persistent posterior occiput, a face case, a condition of marked disproportion between the presenting part and the pelvis, or even a breech appearing at the superior strait. The entirely unnecessary delay to which the woman has been subjected only intensifies her liability to shock, to sepsis and to hemorrhage after the operation. The child, which might have been saved, if interference had been inaugurated in time, may be lost through asphyxia, manipulation, forceps, or even require mutilation before delivery can be accomplished. When such emergencies arise, there are, as a rule, no adequate preparations for the work to be done. The remedy which the speaker offered for this state of affairs was as follows:

"Every obstetric case should be examined methodically during the last month of pregnancy, preferably at weekly intervals, and after due consideration a definite day and hour for the onset of the labor should be set. This should depend upon the position and presentation of the fetus, the character of the pelvis, and the relation which it bears in point of size and shape to the presenting part; and every effort should be made to correct any existing large dose of castor oil at night, followed by an enema, are often With a slightly contracted pelvis, measured more accurately by the relation of the fetal head to the brim than with the pelvimeter, a somewhat early induction of labor would afford far better chances to both mother and child than a version or pro-

tracted forceps operation performed two or three weeks later. The possible danger to the child by reason of its slight prematurity would be more than offset by its easy birth and escape from the perils of operation. In cases where the position and presentation are normal, the patient should be allowed to go on to term, and labor then induced. The method of induction depends much on whether the patient is a primigravida or a multigravida. In the first instance it is usually necessary to insert a bougie after the Krause method and leave it until pains are established and the cervix softened and dilated, when it should be removed. This should be done at night, the patient having been first given a full bath and a large dose of castor oil, to be followed by an enema in the morning. The physician should return the next morning, remove the bougie, and if pains are not well established, stimulate contraction by digital dilatation of the cervix. In the case of a multigravida, the use of the bougie is seldom indicated, as a large dose of castor oil at night, followed by an enema, are often enough to bring on labor in the morning. If not, vigorous dilation of the soft and patent cervix will, in nineteen cases out of twenty, cause effective pains within a short time. As soon as labor is well established, its further progress is left to nature. Chloroform to the second degree should be exhibited during the second stage, and instruments used if necessary, under surgical anesthesia, but only after complete dilation. The duration of labor in the primiparas, dating from the onset of pains, after introduction of the bougie, has averaged under five hours, and in multiparas under two hours."

Dr. J. H. Burtenshaw said that were labor induced, and anything to go wrong, the family would throw all responsibility on the physician. Also, he did not see how the term of labor was so successfully shortened at the end of a full term pregnancy in either a primipara or a multipara.

Dr. Wells said that he had treated several patients who had been delivered by the method described by Dr. Cooke, and they had suffered a greater percentage of ill results following parturition than the women whose labors had taken the normal course. He also said that if only the external os were to be dilated, he much preferred to do it with the gloved hand, rather than with the bougie.

Dr. Ladinski said that he recalled several cases in which it had been necessary to induce labor, in which this procedure had been followed some time later by subinvolution and hemorrhage. While a little time had been saved for the physician by Dr. Cooke's method, he doubted whether the patients had been saved much time and discomfort.

Dr. Cooke closed the discussion, saying that he thought the

positive statement that labor would be induced at a given time had a good effect on the patient mentally, and the uncertainty which she was saved left her in general condition better fitted for the ordeal which she had to face. He thought the post-partum complications to which Dr. Wells referred were the result of inexperience and imperfect technique on the part of the operator rather than of the method itself.

Toronto Medical Society.—On the first Thursday evening of each month the Executive of the Toronto Medical Society has arranged for a meeting of its members at one of the hospitals, as follows: January 5th, Western Hospital; February 2nd, Grace Hospital; March 2nd, St. Michael's Hospital; April 6th, Toronto General Hospital. At each of these meetings the hospital staff will present a full complement of interesting clinical cases, and the Hospital Board furnish refreshments for a pleasant social gathering at the close. The Executive believes that it will be not only a duty, but also a gracious act for every member of the Society to endeavor to be present, and therefore asks for an attendance of at least one hundred members at every meeting. The meetings already held at the Hospital for Sick Children and the Toronto Orthopedic Hospital were certainly a great success, and we urge as many of the profession as possible to make a point of lending their presence to each meeting this winter.

Selected Articles.

THE LOUISIANA PURCHASE EXPOSITION, THE NEURASTHENIC AND THE BRAIN-TIRED.

BY CHARLES H. HUGHES, M.D.,

Dean of the Faculty and Professor of Neurology and Psychiatric Neurology, Barnes Medical College, St. Louis.

THE "Exposition grounds are approximately in the shape of a rectangle, two miles from east to west, and one mile from north to south, made up of four distinct parcels of ground, aggregating 1,240 acres. The greater portion of the fair is in the west half of Forest Park, one of the largest of the public parks of the great cities of the United States. The east half of this park has been kept intact. The Forest Park section of the fair comprises 668 acres. It was the first portion of the site acquired, and on it are built eight of the big exhibit palaces. West of the Forest Park section is the Skinker tract acquired from private owners, the principal of whom was Thomas Skinker. It covers 422 acres. On it are located the palaces of Agriculture, Horticulture, Forestry, Fish and Game, the Philippine reservation, the big Floral Clock, the plant Map of the United States, the United States life-saving exhibit, the Ethnology building, and the national pavilion of France. An additional area of 110 acres just north of the Skinker tract was leased from Washington University. On it are built the majority of the foreign pavilions and the Administration group of permanent buildings. East of the University tract and north of the fair grounds, is the Catlin tract, which contains sixty acres, which is used for concessions. The Pike runs the entire length of this tract, a distance of nearly a mile.

"The architectural feature of the Exposition is mostly made up of eight vast exhibit palaces and two miles of lagoon. Picturesque building and verdure-covered hills help the effect. This is on a level area surrounded on two sides by high hills. These hills are not continuous, but jut out at four points. These jutting prominences are used with fine effect in the decorative scheme of the Exposition. The first of the prominences is crowned by the United States Government building. Two others, with the connecting ridge, form the Cascade effect. The remaining prominence is crowned by the national pavilions of Japan.

"The two central prominences, which are connected by a

semi-circular ridge, lead to the lower level of the grounds by a finely sloping hollowed declivity. This natural feature was used by the Exposition architects for what is pronounced by critics to be the greatest architectural water and garden composition ever executed by man, the Cascades and the Cascade gardens. The declivity below the Cascades is occupied by lawns and gardens of exquisite design. The hill is reached from two of the avenues of the main picture by a long approach flanked by portrait statues of the great men who have helped in the development of the Louisiana Purchase."*

If, then, we consider only the magnificent distances and multi-form attractions of the Louisiana Purchase Exposition, and the expenditure of neuropsychic and muscular force necessary to see and hear them completely, we should say, *prima facie*, the neurasthenic should not go there. Its actually more than two mile square of attractions (including its enclosure and Forest Park and its environments and the Lewis building and searchlight to the north-west), if encompassed with the usual eager sightseeing haste, will exhaust the strongest, and are liable to collapse the neurasthenic, if attempted in the usual hasty way. Six weeks are none too much of time for the strong, and a hundred one or two-hour visits, in as many days, would better suit the brain-fagged and nerve-strained.

But the neurasthenic will go to the World's Fair, as well as the strongly nerve-centred, and we should guide him on his way, if we can, against unrecoverable exhaustion, as we shall have him to treat, if he escapes our friend, the man of the black pall and plume, at the conclusion of his Exposition experience.

The true neurasthenic is a neurone asthenic, a psychic neurone asthenic. One whose psychic neurone waste and repair balance has become deranged. He is the man or woman who "does things," or who "has done things," or tries to do things, or has tried to do things too often to the point of abnormal, not readily daily recuperable exhaustion, as would come to the neurally healthy—that is, the true psychic cerebrasthenic neurasthenic is so. His neurotic restlessness makes him restive and prompt to exertion, even after the time in action for rest is reached, as distinguished from excessive passionate indulgence, such as the venereal or alcoholic neurasthenic, who usually has complicating troubles.

The clinic picture, with portrait, of the late Professor Gross, of the Jefferson Medical College, on exhibition in the art section, a picture of blood with the horror-stricken mother, in a side light in an attitude of despairing shock and grief, is not a good picture calculated to help toward recovering the sanguiphobic neurasthenic.

* This description is taken mainly from the Official Guide, which contains about 200 pages more of description.

Cutting down upon a necrosed bone or on an artery for ligation is never a cheerful picture to any onlooker, and not especially so to the most hopeful patient, unless he takes an anesthetic pleasantly and passes soon into dreamy forgetfulness, much less to morbidly unstable nerves, as in neurasthenia.

The painting is one of Thomas Eakins' best, among many good productions there on exhibition. The eminent surgeon's expression, intent upon his task, like a veteran warrior commander amid the carnage of battle, indifferent to all else, though lives about him are shattered and hearts bleeding, is true psychologically to nature. The picture, however, does not meet the requirements of either modern psychiatry or surgery, for the operators all have on their ordinary clothes, the principles of Lister are not in evidence in the proceeding, and to-day the poor, despairing mother would not be permitted in the operating room.

The complementary picture of D. Hayes Agnew, in the amphitheatre by the same artist, in the same hall, represents an operation under more advanced aseptic precautions. The picture must have been painted towards the close of the session, with a senior class for an audience, for many of them showed tired faces, and some are asleep, and some appear to be developing that pathological neurasthenia, which is too often the sequence of the modern medical colleges' exacting and exhausting curriculum, especially where the students are so imprudent as to indulge in engrossing side pleasures in late night hours, in addition to the exacting study college duty demands.

The pictures of Gross and Agnew, coupled with the biography of their regular, steady, driving, striving, systematic lives, are a defiance of that premature neurasthenia, such as befalls the less systematic and prudent worker in the fields of medical endeavor. They worked much, but they rested betimes and were not worn out by those vices and indulgences which exhaust so many. If you would see the picture of another great and long-lived surgeon, see that of Sir James Paget, in the British pavilion. Its tranquil face, like that of the imperturbable artist who painted it, will rest you while you look upon it and them. Non-neurasthenic tranquility and psychic power and composure beam from those faces.

To the man of ceaseless demands, the man of affairs, the weary and heavily laden professional, business or domestic burden bearer in this strenuous age, diversion is recuperation, and recreation is rest and may be made to conduce to recuperation, even at a great Universal Exposition like the World's Fair at St. Louis is. But to conduce to this end, its attractions should be taken slowly and in moderation, with the length of weeks and months expended upon them and not by a few days of brain-racking sight-

seeing. Not by trying to encompass its wondrous exhibits or comprehend its numberless world studies in limited days or even weeks, can he or she of meagre nerve power reserve, do it without self-harm, but by doing the observation of its cosmic wonders with leisure and discrimination, diverting and resting the mind, and adequately feeding and sleeping the body between visits to its thousands of entertaining and instructive and mind-diverting attractions, and by blending its tranquilizing, soothing and refreshing adjunctive influences with its wondrous sights.

The lagoons, the native environing forests to be seen from the windows of the Intramural railway, the automobiles and rolling chairs and jinrikishas of the grounds are restful, and so likewise the different plazas and the Filipino reservation and Press Club porticos and views therefrom.

The brain-weary should take in the Pike with extreme moderation and deliberation and only at times when the brain is most refreshed, as early in the morning, after a previous night of prolonged, refreshing sleep. No neurasthenic should attempt, or anyone else of discretion, to do the Pike in a single day. Visits to the most exciting scenes, like the Galveston Flood, the Boer War and the Naval Battle, should be followed by a round of the lagoons or on the Intramural railway, or by a visit to Old St. Louis or the Tyrolean Alps or to the North Pole or Under and Over the Sea, to Creation or the Plazas, or the Government Fisheries building or to Jim Key, the educated horse, or to the Old Plantation. Certain neurasthenics should avoid the Boer War and the Naval Battle entirely, while the hypochondriac and the melancholic might see them under judicious neurologic advice; likewise the scenic railway, the shoot the chutes, the aerial leap.

The Philippine parades are interesting and restful, as all the exhibits, educational and domestic, of these people are instructive, as well as the Government Filipino exhibit and War Department exhibit here. Likewise the panoramic trip to the Philippines, the Solarium, and Frigidarium.

The Dairy Farm barns and Commercial Poultry Farm and other farm shows and fruit exhibits are enough for one day for the weary visitor from the country on the first day of arrival, and too much for the brain that is unhealthily tired, that is neurasthenic. The lagoons in the evening, a restful view of the Cascades and a round of the lagoons and Intramural railway is enough for the brain and body-wearied for one day, and better for the first day at the Exposition for any one.

The Exposition may be viewed with less fatigue by approaching it first at the south-east gate or at the Administration building entrances of the Transit or Suburban systems, instead of the Main or Lindell entrance, going to the State buildings, especially

to your home State building, registering and resting there. This gate is called the States Entrance gate, though not all the State buildings are in that vicinity, the California, Illinois, Tennessee, Virginia, Idaho, Maryland, Montana, Oregon, Maine and Fraternal buildings being further west. But the ground is high here, almost on a level with the Terrace of States, the Festival hall, the Fine Arts hall at the top of and behind the Cascades, distant about half a mile, and the German building near by. Here, on this level, the visitor who must economize his strength and who will, if not possessed of a surplus of reserve nerve energy, may spend a day in viewing, from an eminence, the grandest aggregation of architectural beauty, combined with an unequalled esthetic panorama of Nature, ever portrayed in the same place, through instrumentality of the head and heart and hand of man. From here, looking north in the distance one mile away, but appearing farther than it is, one may see the snow-clad Alps and Blarney Castle of Ireland, and, in the valleys below, the waterways and gondolas between the Art palaces, as if one were actually viewing them in Venice. Here are also the more modern and more rapid electric launches. Only Ireland dissipates the pleasing illusion that the real Alps are before you in all their snowy sunlit or moonlit beauty in the distance. From near where you stand ripple and dance and sparkle in electric light the illuminated Cascades, down the statuary and column-skirted stairway. In front, and on either side, are green velveted sward and waterways, the beautifully artistic bridges spanning them and the magnificent buildings, each of a different style of construction, lining the streets and holding samples of the world's greatest treasure in fine art, handicraft, varied industries, productions and inventions, including our own Government's matchless display and the great De Forest Wireless Telegraph Tower, the Model City and the Sunken Gardens to the north-east and Machinery Gardens to the north-west.

The young and the strong, in the sappling age of life, when nightly recuperation completely restores each day's waste of neurone strength, need no special precautions, for they will soon learn in lessons of experience and be forced to take the needed rest for proper repair of mind and body and not be the worse for their lesson, because their fatigue, being only physical, will be physiologically recompensed by nature in her natural course of recuperation. But neurasthenia, as the neurologist understands, is abnormal nerve centre exhaustion and inadequate neurone reconstruction, after the psychic exhaustion of undue sight-seeing. Recuperation is neither so rapid nor complete in cerebrastrhenics after this condition appears, as it was when their cerebromental state was normal and Nature preserved for them each day

the rightful physiological balance between waste and repair; when reintegration and disintegration were better balanced and daily overwork of brain was better compensated.

These observations are intended to apply to that strenuous individual whose life motto has probably been "nothing impossible," and whose rule of action is "always at it," or something of that sort, who has never admitted a limit to the possibilities of human endeavor, especially his own, who has regarded his mind as something apart from his brain, and not subjected like the organs of the body to definite physiological limits of endurance, who believed his brain could be loaded to limitless effort and who has never stopped till cerebraesthesia and its attendant phrenasthenia called him to a halt. Who has always thought it was the other fellow and not he that would break in the strain of the battle of life. He is coming to the city. He is among our patients. He is among yours, brother neurologists. You can arrest him for a time, because his brain exhaustion compels a halt, but you cannot suppress him or hold him down. He has not got over the idea that the mind is superior to the brain that sustains it. He will see the Exposition though he may die in the attempt. Since we cannot keep him away from it, let us try and guide him aright and teach him to make a diversion, rather than a task, of it, a rest rather than a ruin. Let us try and make of the Exposition a medicine by counselling him aright; let us not permit him in his impetuous strenuosity to make it a source of further exhaustion, for the mental meat of the vigorous and unbroken may become, if taken the same way, a poison to the neurasthenic. Rest and restful diversions from accustomed brain strain are the remedies for the neurasthenic, and while Paine's fireworks and Hale's fire fighters are better for the hypochondriac and melancholic and should only be seen at a distance, if at all, by the neurasthenic, there are restful diverting scenes for him here that need not be denied him.

These injunctions are only for those persistent, irrepressible neurasthenics who insist on keeping their psychic neurone machinery running, pending the efforts of the neurologist at effecting repair. There is another class among the brain-fagged professional or business man not yet in the hands of the neurologist, who might profit by some of the precautions against overstrain set forth in this paper. It embraces those who yet toil in that busy mill,

Where souls are ground and money is made
All day—"till temples throb and thrill
With the whirring grind of the wheels of trade,"

And the ruthless, relentless, routine rest-robbery of this radium

light and electric speed epoch of modern progress toward brain and body dwarfing and mind destruction.

The profoundly neurasthenic had better avoid the inside of the great exhibit buildings, except to give them but a bird's-eye view from their entrances, to get a general idea of their grandeur and magnitude for comparison with the exhibit spaces of the next World's Fair, after he gets well, if the world is ever to have a replica of this great Exposition's exhibit palaces. The neurasthenic should hang about this great Exposition for months, seeing and doing but a little daily, as at a seaside home.

The World's Fair avenues, like the great boulevards of Paris, or the Nevsky Prospect of St. Petersburg, or like other expansive environments of the Exposition, are too broad to excite a feeling of Claustrophobia in a neurasthenic. Nothing of the kind* for free air space between its enclosure has been seen in any previous similar Expositions, and the south and east view of the virgin woods of Forest Park, as they may be seen from the windows of the Intramural railroad, is not equalled by any scenery for native woodland grandeur in Fontainebleau or Rotten Row.

The neurasthenic tuberculotic would find the air and temperature here congenial to his pulmonary needs, even in the hottest weather, and the entire grounds are sanitary. The prevailing breezes here are from the south and west, and temperature habitually averages eight or ten degrees lower on the Terrace of States than on the Plazas below. The high, cool plateau location of nearly all of the State buildings and the opportunities in all of them for sitting in the shade, coupled with the general hospitality of their invariably amiable and often handsome hostesses and courteous commissioners, makes them inviting places for weary visitors, even who are not neurasthenic.

The neurasthenic, who has the characteristic dread of solitude, will not feel alone at the Exposition, and he who has a dread of crowds need not mingle with great crowds on the many special days, nor visit the Pike or the Plazas when the bands play, nor go at those hours and places when and where the people most do congregate, but can enjoy them at a distance. The best entrances for such as wish to husband their nerve strength and avoid the confusion of crowds and save their physical strength, are the gates on the south side, reached by the rapid transit, and by the Administration building entrance of the Suburban system's most western gateway.

The grounds of the south-east side of the Exposition are the highest and the visitor sees everything here on a high level or as he descends. The exhibits here are the quietest on the grounds, being chiefly in the State buildings, the Festival hall, where the great organ is, the German building and great restaurants and the Terrace of States. In this vicinity are General Grant's Log

Cabin and the Lewis and Clark historic Oregon* fort, Clatsop, built for winter-quarters at the conclusion of the famous expedition of that name, across the continent to the Pacific in 1805-6. The Lumbermen's club house (the House of Hoo Hoo) is here with its characteristic hospitality and its woods of more varieties than Joseph's famous coat had of colors. You may rest on the portico or in its restaurant, or have an excellent luncheon across the way at the grounds of the Grant Cabin, in the shade of the trees, or a little further south at the Southern Home restaurant, which looks out on the forest, or the German building restaurant, or at Mrs. Rorers'.

On the north-west grounds are the Queen's Jubilee presents, Anthropology exhibits and the Hall of Congresses in the Administration and Washington University buildings. On the south and south-west sides are Jerusalem and Morocco and some of the State buildings and the Boer War camp, a desirable place to visit, full of interesting exhibits, and where Generals Cronje and Viljoen may be seen independently of the exciting portrayal of the Boer War. A good place for the silent melancholiac, but not for the sanguiphobic and astrophobic neurasthenic.

If this cursorily constructed paper shall help any brother neurologist in managing that neurotic problem, the neurasthenic at the World's Fair, the author will feel himself rewarded for his pains. Of course, the profoundly neurasthenic will not be at the World's Fair, but the milder neurasthenic, with graver symptoms than he may himself appreciate, will be there, and if we can we should turn his sight-seeing and novelty-seeking experience into an instrumentality of help, instead of harm, and this is not assailing the absolute rest cure for a class of these patients for whom absolute and secluding rest can be prescribed and will be taken.

Contrasted with other great expositions, a valuable comparative estimate of the Columbian and Louisiana Purchase Expositions is given by Mr. Edward Bangs, first assistant superintendent of Illinois, after a visit to the St. Louis World's Fair. This Exposition, he says, greatly exceeds the Chicago fair in scope, arrangement, extent and beauty:

"In the matter of exhibits there is to be found on these grounds a more complete, comprehensive and extensive display of nearly every branch of human endeavor than has ever been brought together. The arrangement of the buildings is convenient, and, for

* A legend on this building reads: Fort Clatsop 99 years ago. This structure is a replica of Fort Clatsop, the winter-quarters of Merriwether Lewis and Wm. Clark and their company in 1805, after they had on the greatest of American expeditions crossed the continent to the Pacific. To this achievement, more than to any other, our Nation owes its frontage on the Pacific and its geographical basis as a world power. The centenary of the event will be celebrated through the Lewis & Clark Exposition, to be held at Portland, Oregon, in 1905.

Here also the American Medical Association will meet next year.

their extent, are easy of access from any point. The Cascades and the Grand Basin surpass the pictures heretofore to be seen at other expositions. The illumination of the Terrace of States, with the imposing Festival Hall, the Cascades and the water effect is an achievement of spectacular architectural effect that has never been approached."

We might except to this statement of Mr. Bangs, the electrical tower display of the Pan-American Exposition, but that was a limited feature of the Buffalo display and not at all comparable in magnitude and beauty to the general variegated illumination of the Cascades, Terrace of States and Exhibit buildings, the Pike illumination and other environing light displays.

The magnitude of this Exposition may be gleaned from an examination of the many interesting features of the Philippine display, which some people regard as an annex, like the great Live Stock exhibit and the Stadium show. The Philippine grounds embrace forty-seven acres, and have upon them thirteen hundred natives, six native villages, 445 Filipino scouts, a constabulary numbering 280, a reproduction of a Spanish fortification and Spanish Filipino bridge, a walled city, a war museum, a Government observatory and relief map of the islands, a Filipino educational building, a reproduction of a cathedral of Manila, and the Manila Commerce building, showing Manila exports and imports, wonderful and beautiful woods, crude and polished, of the islands, a typical Manila house, handsome and attractive without and within, containing exhibits of Manila woman's handiwork, the Government building, the Fine Arts exhibit, the Agricultural and Horticultural exhibits of the Philippine Islands, the Ethnology building and house of the Tree Dwellers or tree-dwelling Moros, the Philippine Forestry building, with the principal exhibits of Philippine woods, a Model school in operation, with Philippine teacher and students, mines and metallurgy, fish and game exhibits of the Philippines, fish-nets, fish and commerce boats, animals, birds of plumage and reptiles of the islands, including the python and the tamarau or water buffalo, a band and concert of eighty natives, constabularies, a Philippine marriage ceremony, native dances, Moro music, food and cooking processes, etc., etc. The black water buffaloes may be seen enjoying life in the water of what has been produced as a replica of Pasig River.

A railroad will take you free of charge around the outskirts of these grounds, but they must be leisurely gone through, and the buildings and inhabitants closely inspected, to fully appreciate this part of the most wonderful of the World's Expositions. The round cannot be made by the strongest person, intent on becoming properly informed, in less than one day, and a person in any way debilitated should not attempt the arduous task without giving

it the leisure inspection of many days. Places for rest and adequate refreshment are on these grounds, as they are everywhere about this wonderful Exposition. It is important that the nervously debilitated person, who imprudently ventures to visit these grounds, should find and avail himself of every favorable opportunity for rest and food repair of brain and body tax during his efforts at sight-seeing.

There is a class of neurasthenics who should be placed in a sort of half-way restraint sanitarium, with features between those of an insane hospital and a home for inebriates, who should sign away their rights to habeas corpus for a time, like Dr. Crothers' Connecticut patients often do, and be treated like Weir Mitchell applies his rest cure, *i.e.*, by absolute rest from all social life and business demands; but the majority are not of that class and will not and need not submit to so great an abselement of personal liberty. Most neurasthenics may be cured by a regulated preponderance of sleep, light mental diversion, in lieu of the accustomed brain-fagging professional business or grief or sorrow-strain of mind, a superabundance of partly predigested nutrition, plenty of fresh, untainted air, as good a supply of daily sunshine as it may be practicable to procure, and a pleasing, diverting environment, such as may contribute to inspire the mind with the impression that life is still worth living, and dissipate the neuropathic timidity and morbid fears of the brain fagged victims. A little daily diverting mental activity is better than autoeratically enjoined repression of thought and emotion, which cannot be accomplished. A little exercise of those neurone aggregations (which we call centres), which have not felt the brain fag of the daily grind, if followed by ample sleep and nutritional reconstruction, will prove salutary if we skilfully regulate, by judicious chemico-therapy, the involved psychic neurones, and this the present-day neurology is now certainly resourceful enough to do with the aid of properly adapted environing influences, even in psychasthenia, about the cure of which so many are yet incredible.

A stroll or ride from the Inside Inn on Commonwealth Avenue, past the Utah, Indian Territory, Arizona, Mississippi, New Jersey, Iowa, Minnesota, Kansas, Massachusetts, New York, Ohio, Missouri and Wisconsin buildings on a balmy August, September or October early morning or evening, turning west down the valley roadway, between the New York and Kansas buildings, skirted with trees and flowers, with the gigantic bird-cage, showing the birds of the Smithsonian National Zoological Park, with the Oklahoma, Colorado, West Virginia, Montana, Vermont and New Hampshire buildings on the north, with the Michigan and South Dakota close by them, will instruct and interest in a restful way

anyone whose brain neurones are not too much exhausted by even slight mental movement.

Birds of many climes and forms are there, large and small, squat and tall, and shapely and shapeless, graceful, graceless and gross. And their habits, all or nearly all, of seeking rest and sleep at the close of each day, will set an object lesson example from the feathered tribe worth emulating by many World's Fair visitors. About this exhibit are seats for the weary, and at the west are music and meals. From a seat here one may contemplate the ingeniously constructed, conical-shaped Washington State building, the United States Fisheries Commission building, the Portland Cement Exhibit building, the Potteries of Ohio, the Colorado burros, and, near by, is the Mining Gulch, Third-rail railroad, the Metal pavilion of the Colorado School of Mines, the Kentucky building, the Government building and the Mines and Metallurgy palace. The South Dakota Corn palace, in this vicinity, is a specially pleasing, ingenious and artistic feature, where one may rest any morning in rapt contemplation of its beauty and skilfully artistic construction. The Kentucky, Texas, Hoo Hoo and German buildings are all in walking distance, in which one may rest and enjoy himself.

On some part of the porticos of most of the State buildings, and most of the other buildings, one may find shady and restful chairs and enjoy a tranquil and inspiring view and verdure of trees, and in "these thick and rich-hazed sumptuous autumn nights," common to Missouri now, when "the moon grows like a white flower in the sky," and "stars are dim," and "tired Nature rests content among her sheaves, as a fond mother rests among her children," the tired brain may recoup itself upon a tranquil feast of smiling delights, of soothing scenes, in a thousand places about the Exposition and away from the music-stimulated Plazas, where the masses most are seen.

After having visited nearly every World's Exposition since 1876, and having been over one hundred times in this, though without yet having seen it all, I make this record of my experience, that it transcends them all in grandeur and beauty of architectural and esthetic feature, as well as commercial and politico-economic comprehensiveness.

At the Louisiana Purchase Exposition, the strong and vigorous who runs through it may read the lesson of the great modern world's great progress, and the brain-weary may, if prudent, view it with leisurely pleasure, if he take but time enough, for, unlike its predecessors, beauty and amplitude of landscape, as well as architectural design show everywhere, and within its ample grounds may be found a hundred restful views refreshing to look upon for body and brain.

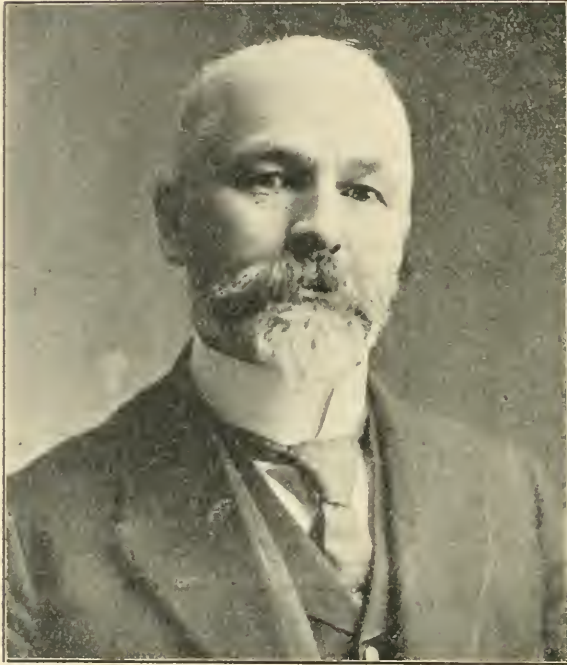
Notwithstanding the immensity of this great Exposition, where the healthy, hearty seeker after world's sights may satiate his mind with a full mental meal in two or three weeks, the specially brain-fagged, with mind strained in one line of business or professional thought, may make it a recreative, diverting, restful, sight-seeing tour of the world within from forty to sixty days. Here he may go and visit within thirty-six hours, without mental or bodily fatigue, Ireland and Jerusalem, and on another two days and a night see Austria, Germany, Holland, Sweden, the Tyrolean Alps, Charlottenberg Castle, *Das Deutsche Haus*, sleeping each intervening night on terra firma. He may go to the Philippines on another day and be but an hour or two in transit, if he stops at a near-by hotel by means of the Street and Intramural railways or the automobile transit. He may, in the same manner, go to Mysterious Asia, to Morocco, New York and the North Pole, Over and Under the Sea, to and from Paris, to the Battle-fields of the Civil War and Mexico, to Santiago, to Cuba, to the Galveston Flood, to China at the Pavilion, to the British Pavilion and the Cottage of Burns, near the banks of the Doon, to the Brazilian, Japanese, Belgian and other foreign buildings, to Alaska and its totem poles, to Oregon and to Washington, States of tall timber fame, to the mining regions of Missouri, Colorado and the Great West, and down into the mines, whence comes in life-like representation the mineral wealth of these United States. In like manner may the natural resources and manufacturing products of all countries and all sections of this great country be seen. So we may see the aborigines of America, the Indian school and huts, the African dwarfs, the buildings of all the States, and the extensive water, forest and plateau views of this blended and unequalled picture of landscape and architectural beauty and commercial and educational utility, such as the world has never before seen in one assemblage, and whose like perhaps we shall never see again.—*Abstracted from Alienist and Neurologist.*

ALOPECIA AREATA.

Hyd. Subchloridi	-	-	-	-	-	20 grains.
Hyd. Ammoniaci	-	-	-	-	-	1 drachm
Liquoris Carbonis Detergentis	-	-	-	-	-	1½ drachms.
Vaselini,						
Lanolini	-	-	-	-	- aa	2½ drachms.

"A Treatise on Diseases of the Skin," page 56.

T. McCall ANDERSON, M.D., Glasgow.



DR. JOHN HUNTER
TORONTO

PRESIDENT TORONTO MEDICAL SOCIETY

Prospective Liberal Candidate for West Toronto, Ontario Legislature

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J. J. CASSIDY, M.D.,

EDITOR,

43 BLOOR STREET EAST, TORONTO.

W. A. YOUNG, M.D., L.R.C.P. LOND.

MANAGING EDITOR,

145 COLLEGE STREET, TORONTO.

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VOL. XVII.

TORONTO, JANUARY, 1905.

NO. 1.

Editorials.

THE INDICATIONS AND THERAPEUTIC VALUE OF PROSTATECTOMY.

THE indications and therapeutic value of the principal operations practised for the relief of prostatic enlargement was the subject of a masterly report, presented by Dr. R. Pronst, at the eighth Congress of the French Association of Urology, held at Paris, Oct. 20-22, 1904. The reporter, who is a master surgeon in prostatectomy, showed that ablations of the prostate are performed by two

routes, the suprapubic and the perineal. Partial prostatectomies are, and ought to be, abandoned.

Removal of the entire prostate by the perineal route shows a mortality of 7.13 per cent., which places this operation in the position of one of the most favorable in the surgery of the urinary organs.

Its special post-operative complications are: lesions of the rectum (recto-urethral fistulae), urinary complications (uro-perineal fistulae, incontinence of urine), lesions of the genital organs (orchitis, impotency).

The best results are obtained in complete chronic retention of urine. Patients who had been unable to urinate for years, pass their urine easily and spontaneously. In recent complete retention, the results obtained are quite as good, but not so striking.

In incomplete chronic retention, the results are not so good, and sometimes are negative. The therapeutic feature of prostatectomy in those cases is explained by the bad state of the bladder and the condition of the lesions arising from their long standing. When calculi are present, their removal is easy during a prostatectomy, and the latter operation makes a relapse unlikely. Prostatectomy exercises a happy influence on micturition and the state of the kidneys; the patients progressively get rid of their toxic condition, and their general condition of health is completely changed.

Suprapubic prostatectomy, or Freyer's operation, may be done in two ways: in one there is a total enucleation of the prostate, with a portion of the prostatic urethra (Fenwick's); in the other (Freyer's) there is a partial or paraurethral enucleation of the prostate, the prostatic urethra not being removed. The latter operation is to be chosen when possible. From a statistic of 244 operations by the suprapubic method, the mortality is found to be 12 per cent., which is, of course, much higher than that from perineal prostatectomy. In looking for the causes of death traceable to this operation, Dr. Proust finds accidents manifestly due to infection; on the other hand, post-operative complications are much less frequent than in perineal prostatectomy. The therapeutic results seem to show that suprapubic prostatectomy is equally efficacious with, if not superior to, perineal prostatectomy.

In the first part of his report, Dr. Proust showed

the results of prostatectomy as applied to the treatment of the hypertrophied prostate gland; in the second part he showed the results obtained in the treatment of malignant tumors of the prostate (cancers and sarcomas). The results in the latter, though bad, are not quite desperate, for the mortality from the operation in such cases, which at first was 55 per cent., has fallen to 30.4 per cent. (Pousson.)

The chief indication for prostatectomy is hypertrophy of the prostate gland. It is during the second period of prostatism, when congestive disorders have been succeeded by mechanical difficulties and retention has occurred, that prostatectomy should be done. In fact, retention of urine is a sufficient indication for prostatectomy, but not a necessary one. The patient ought to have a choice between "catheter life," with which he is threatened, and the operation, which can free him from such a condition. But the indication may become more pressing, owing to the difficulties of catheterism in complete retention, and the increase of the residue in incomplete retention, and prove necessary, owing to the presence of toxemia and progressive infection. Another element which should be remembered in establishing the operative indications is the size of the prostate and the extent to which its shape is altered.

With regard to the choice of route in prostatectomy, Dr. Proust simply says that "If the perineal method is better regulated, has more cases to its credit, and has a lower mortality than the suprapubic one, we must look to the future to learn which is the better of the two operations."

In the matter of malignant growths of the prostate, the fact that their mortality has been lowered by 25 per cent. by prostatectomy should give encouragement in the future, even if the survival in such cases should be small, owing to the fact that the methods by which an early diagnosis is secured still remain imperfect.

The paper was discussed by Drs. Desnos, Heresco, Reboul, Harmonic, Veerhogen, Pauchet, Paul Delert, Rafin, Malherbe, Loumeau, Brin, Reynés, Leguen and Albarran, who mentioned the results of their prostatectomies, and, in a general way, confirmed Dr. Proust's conclusions. Dr. Nicolich (Trieste), however, declared himself a supporter of the suprapubic method,

because that operation is done "more easily, more quickly, and is less dangerous."

The statistics of prostatectomy, given by American surgeons, are still more favorable than Dr. Proust's.

In a paper published in the *Journal of the American Medical Association*, November 12th, 1904, Dr. Eugene Fuller, of New York, says: "My experience to date with prostatectomy is somewhat over three hundred cases. I feel that, if cases complicated with very marked uremia are excluded, I can operate with an average risk to the patient of not more than probably under 5 per cent. Death from the operation itself is practically *nil*." Dr. Fuller selects the route most suitable for the case in hand.

Dr. Parker Syme, of New York, who is opposed to the suprapubic route in prostatectomy, said, in the discussion which followed the reading of Dr. Fuller's paper: "There are 78 cases of prostatectomy reported by Goodfellow, 58 by Young, and 33 by myself, being a total of 169 cases, with only 4 deaths. This certainly speaks well for perineal prostatectomy, showing a mortality of only 2.33 per cent."

The statistics given by Fuller and Syme speak well for the American surgeon, the American patient and the American nurse. It is about time for Canadian surgeons to begin to publish their statistics of prostatectomy.

J. J. C.

SOMETHING ABOUT THE ETIOLOGY OF BERI-BERI.

ISOLATED facts fall into groups and may be crystallized into general conclusions.

From a study of the summer and winter outfit of the Japanese infantry soldier (*Brit. Med. Journal*, November 12th, 1904) it appears that the greatest care and ingenuity are exercised by the military authorities of Japan to secure the health and comfort of the men serving in Manchuria, which is in summer very hot and in winter very cold.

Further, at the International Congress of Military Surgeons, held at St. Louis, October, 1904, Major Seaman, U. S. Army, declared that the medical forces of the Japanese army, in addition to the care of the sick and wounded, have to grapple with the greater problem of preventing disease by the careful super-

vision of the details of subsistence, clothing and shelter. The medical officer was to be found in the front of the army and in the rear. He tested and labelled wells, so that the army which followed would drink no contaminated water; he examined the sanitary conditions of a town, and, if cases of contagious or infectious diseases were discovered, he placed a cordon around the quarter where they were found. A medical officer accompanied foraging parties, and, with the commissariat officers, sampled the various foods, fruits and vegetables sold by the natives before the arrival of the army.

The medical officer also taught the men how to cook, bathe and live in general a healthy life, and it was a part of the soldier's routine to carry out these instructions in every particular. As a result of this system, cases of fevers and dysentery that follow the use of improper food and polluted water were not brought to the notice of the medical officer. During six months of war in a foreign country the Japanese army lost only a fraction of one per cent. from preventable disease. Major Seaman stated that up to August 1st, 1904, 9,802 patients had been received at the hospital at Hiroshima, of whom 6,636 were wounded, and that of the entire number only 34 had died.

So far so good. Another bit of evidence is not so satisfactory. Richard Harding Davis, *Collier's* special war correspondent with the Japanese Second Army, writes as follows, in *Collier's*, November 5th, 1904: "The next morning, as the camp woke, a company of soldiers came towards us on foot. That they were going to the base, instead of to the front; that they were without arms would have made them conspicuous; but, added to this, the gray light gave to them a touch of the weird and uncanny. They were not wounded, at least they wore no bandages; apparently they were not ill, for they were able to walk. But, as they passed us, we saw that they moved only with infinite effort, that their glazed eyes were unseeing. They neither joked nor spoke. Before they had passed we knew that all of these were the latest victims of that scourge of the Japanese army, the beri-beri, or the sleeping sickness. In the morning mists, as the long, sad column moved in utter silence, it resembled a procession of ghosts."

The name "beri-beri" is that given by the Malabars to this disease. Beri is the Singalese for weakness, and by iteration

implies great weakness, as indicative of the increasing weakness and marked anemia which, with numbness of the surface generally, together with stiffness and edema of the lower extremities, are the symptoms of this affection.

Regarding the etiology of this disease, French writes, in *Practice of Medicine*, Philadelphia, 1903: "The theory of food toxemia is held, especially in Japan and Java, where the disease is attributed to the excessive consumption of white (hulled) rice. It is said to have been repeatedly checked by the adoption of European food. Visitors to Japan do not become affected, so long as they do not adopt the rice diet."

The fermentation of rice is regarded by several writers as the more remote cause. Capt. E. R. Rost, I.M.S., asserts that in Rangoon, where the disease is epidemic, it is caused chiefly by drinking rice-water liquor, made by the Chinese from damaged rice. The disease is not seen in children there, seldom in women, and it is not infectious or contagious. Males from 16 to 25 years of age are most frequently attacked, but it may affect either sex at any age. Hot, moist atmosphere and overcrowding favor its development.

An interesting observation on the etiology of beri-beri is recorded by Dr. Judet de la Combe in *Annales d'Hygiene et de Medecine Coloniale*, 1904, No. 3, p. 326. Having been placed as a medical officer in charge of the "Nickel Company" in New Caledonia, during the years 1901, 1902 and 1903, he had to look after one thousand Japanese laborers who were brought into the colony and employed by that company. The morbidity rate among these men was high, as was also the mortality rate. Beri-beri was the disease which, from the beginning of his engagement, was the principal factor in their medical history. He found that the substitution of bread for rice in the diet of the Japanese laborers caused the beri-beri to completely disappear from among them. No allusion is made to any medicinal treatment.

In Bangkok, where fresh rice is plentiful, Nightingale (*Brit. Med. Journal*, September 20th, 1902) states that beri-beri is a rare disease. Amongst the Tamils, in the Straits Settlements, beri-beri is very uncommon, it being their custom to decorticate their rice, *only after it is cooked*, whereas amongst the Chinese and Malays beri-beri is rife, and they eat rice which has been husked a year longer."

Schuttelaure (*Arch. fur Schiff's. Med. Trop. Hyg.*, July, 1902) describes two epidemics of beri-beri at Diego-Suarez. In one of them, he found the disease disappeared by increasing the quantity of fat in the diet, and in the second epidemic, when fresh bread and fresh non-decorticated rice supplanted rice deteriorated by age, the disease was arrested. These and other observations seem to prove that when, from any reason, the health of men living in tropical countries deteriorates, beri-beri, which may have attacked some members of the community, speedily disappears with a change to fresh, wholesome diet.

The study of this interesting subject is "now being carried on at Kuala Lumpur, in the Malay States, by Dr. C. W. Daniels and his colleagues." (James Cantlie, M.B., *International Med. Annual*, 1904.)

Even if the regulation diet of the Japanese army is constituted of the proper proportions of proteids, fats and carbohydrates, it must, in war time, have the curse of sameness, which would be a predisposing cause to beri-beri, according to Laoh (*Journal Trop. Med.*, September 1st, 1903).

Whatever the true etiology of beri-beri may be, alteration or improvement in the diet of the patients is always followed by improvement.

Probably the best that could be done for the ghostly company of soldiers who limped along before Richard Harding Davis in Manchuria, last August, was to send them to the base, where the necessary change of diet could be most speedily secured. A knowledge of the etiology of the disease would, in future campaigns, help to prevent its occurrence among Japanese troops.

J. J. C.

ON THE EXTENT OF TUBERCULOSIS IN CANADIAN CATTLE.

To those who have followed the movement through which so successfully, during all these years, live Canadian cattle have been prevented from setting foot outside the dock-yards in Great Britain, it is not a little interesting to observe the series of subterfuges by which the cattle-breeding interests in Great Britain have striven to bolster up their action. The last subterfuge is only on a par with its predecessors. It is stated that there is serious danger of the introduction of tuberculous into British

herds through the introduction of Canadian live stock. A more fallacious argument it would be difficult to bring forward. What are the facts of the case? There is no country of equal size, or with an equal number of cattle, in which, as far as statistics can show, there is less bovine tuberculosis than there is in Canada. The disease, it is true, exists, for it has spread through the world, but, whereas—if we may judge from the various abattoir results and the results of tuberculin tests upon various herds of cattle in Great Britain—from twenty-five to fifty per cent. of British cattle are infected with this disease, it is safe to say that not three per cent. of Canadian cattle are infected: a statement that cannot be made, to our knowledge, with regard to the cattle of any other civilized country. And these infected cattle in Canada are, very largely, herds raised from imported, high-bred British animals, and the evidence that it is to these that we largely owe the disease in Canada is so strong, that the government has been forced to take strong measures in order to prevent the further entry of such infected animals from British ports. It is in the older established provinces that the disease is found, but even in the Province of Quebec, with its small French-Canadian farms, in which the management of the cattle is far from perfect, so rare is the disease that, only a few years ago, when Professor Adami, as pathologist of the Department of Agriculture of the Dominion, was engaged in studies upon bovine tuberculosis, and needed urgently to have cattle presenting advanced tuberculosis of the udder, although instructions were given to various inspectors to report such cases in order that, instead of the animals being destroyed, they might be forwarded to the experimental station at Outremont for research, during the three years he was unable to obtain a single case. One herd only was reported in which this existed, and, when the owner heard why the animals were required, he immediately put such a price upon his beasts that the Department refused to consider the matter. This, in itself, is sufficient to show the relative rarity of advanced tuberculosis, even in the older established districts.

But it is worthy to note that the exportation of cattle from the older established provinces to Great Britain is practically *nil*. The cattle-raising industry for the British market is practically confined to the North-West Territories, and among the cattle on

the great ranches of the foot-hills of the Rockies, tuberculosis is practically an unknown quantity. Those cattle are out in the open the whole year round, and, with them as with man, life in the open is the surest preventive of the disease. These cattle have been slaughtered by the thousands at the Deptford, Glasgow and Liverpool abattoirs, and the freedom of their lungs and serous membranes from any trace of the disease is a matter of notoriety.

So the actual facts of the case give the lie direct to the contentions of those who oppose the importation of Canadian cattle. And the deductions to be made from these facts are the very opposite to those suggested. In order to introduce new blood into British herds, wholly free from tuberculosis, no better general scheme could be suggested than to freely admit cattle from the North-West into Great Britain.

J. G. A.

**"THESE ARE ALL HONORABLE MEN"—WHO PAY FOR
CHAPERONES?**

TORONTO, DECEMBER 7TH, 1904.

Dr. MacCallum, 13 Bloor Street W., City.

DEAR SIR,—I should have replied earlier to your letter of the 4th ulto. Possibly, it is now scarcely necessary to do so, as you state that you have decided on the course which you will pursue. It may not, however, be fair to allow you to remain under the misapprehension to which you refer, and the more so as it appears to cause you so much pain that some of your fellow practitioners pursue "such unprofessional and reprehensible practices in connection with Havergal College."

In the first place let me say that the item to which your object is in no case asked or paid where the pupil is visited at the College. The only occasion in which such a charge is made is when the pupil visits the medical attendant. It is necessary that there should be a chaperone attending the pupil, and, after consideration, the amount suggested was found reasonable to answer this charge. The College makes nothing by this amount either in the shape of commission or discount. It barely supplies the amount needed to pay for the special attendance of the person who accompanies the pupil.

Secondly: Your deduction is absolutely erroneous. Without any basis for this you say: "Of course you inform the parents," etc., "and that the recommendation of the College in connection

with the physician depends upon the payment of this commission." The College recommends no physician. It has had from the commencement a regular medical attendant, and no other medical gentleman is called in unless by the special demand of the parent or guardian who invariably names the special physician he desires.

Third: I quite agree in your statement that "no reputable physician will so far forget himself as to employ runners or touts." The thought never entered my mind until suggested by your letter, and I simply reply to this portion of it, as your letter of the 4th is in answer to mine of November 1st.

Of course we are only responsible for those physicians who are employed by the College itself, and we are satisfied that they are reputable physicians, and, therefore, that some of the acts which you describe as reprehensible can be charged to them. Beyond this I cannot say anything. I trust that with this explanation you will feel it your duty as belonging to the class covered by your own term "reputable physician" to apologize to the College for the language that you have used, and the insinuation which you have made.

Faithfully yours,

S. S. HENDERSON.

TORONTO, DECEMBER 13TH, 1904.

S. S. Henderson, Bursar, Havergal College.

DEAR SIR,—Over a month to make the explanation which needed but a day! The physicians to whose offices the pupils of Havergal are sent do not pay commissions, but do pay for chaperonage. The rose is indeed sweeter under another name.

Every physician gives ten per cent. of his fee to the chaperone who accompanies a patient. He also sends a carriage for her, and, if wise, flowers occasionally. One would scarcely credit the amount of money expended in this way by physicians.

Another well known and accepted fact is that it is not the duty of the parent to provide a chaperone for his daughter. How can the school, which stands *in loco parentis* to the daughter, be expected to do so? This duty falls upon the milliner, the dressmaker, the dentist, the druggist, the doctor, any one who will pay ten per cent., but never upon the parent, nor upon the Institution to whose care the daughter has been entrusted.

Strange that I had overlooked such everyday facts! but you have made it so beautifully clear that I feel inclined to offer you fifty per cent. I do not see how Havergal can possibly do it for ten.

Do the authorities of Havergal in all seriousness offer this as an explanation? If the yearly fee charged by Havergal College be not sufficient to cover chaperonage, why not inform the parent, and charge him, instead of trying to take it out of others.

"The parent or guardian invariably names the special phy-

sician he desires" (Letter of Dec. 7). Who adds on "the usual condition, ten per cent. deducted by the College" (Letter of Oct. 24), Havergal College or the parent?

I refuse to pay a discount, commission or "charge for chaperone," as you now prefer to call it, and am told, not after a month, but by the next mail, that no other pupil will attend me from the College. Should any other parent chance to name me as the special physician, the pupil will not attend me, for Havergal College says "Miss —— is the only pupil who will attend you from the College" (Letter of Nov. 1). What then becomes of the parents expressed desire? This is the way in which you propose to make me pay chaperonage?

To still further emphasize the necessity of my paying you this commission—chaperonage (?)—you state that my "name will not be entered on the staff of specialists connected with the College" (Letter of Nov. 1).

What term shall I apply to this? Shall I suggest that an apology is in order? Not at all! This is but one of the amenities of life as illustrated by the teachings of the authorities of Havergal College, an institution devoted to the ethical instruction of young ladies.

My "name will not appear on the Staff of Specialists," because I will not pay discount, commission, or chaperonage (?) Certain names do appear there. May one conclude that the men whose names appear on that staff do pay Havergal College this commission, chaperonage (?)

If this giving Havergal College ten per cent for "chaperonage" (?) is not reprehensible, if the physicians who have given it, for you describe it as the "usual condition," are not ashamed of it, why not give their names? That Havergal College agrees with me that this charge for chaperonage(?) is reprehensible, and unprofessional because reprehensible, needs no further proof than your persistent and studied failure to give their names.

You now tell me that Havergal recommends no physician, has none other than its regular medical attendant. What then becomes of "the Staff of Specialists in connection with the College?" (Letter of Nov. 1). How much confidence is to be placed in any statement of yours? Was there never any such staff, or have they resigned rather than let it be known that they pay what you so felicitously denominate a charge for chaperonage?

I confess that my deduction as to Havergal College recommending physicians was not based on fact. It was based on your statement of a "Staff of Specialists connected with the College."

Havergal College began by calling the usual conditions "a discount," but discounts are deducted by the one to whom the money is due, not by an outsider. Driven from that, you say it is a charge for chaperone—but strangers do not furnish chaperones.

First, last and all the time, it is a commission. Neither Havergal College, which demands the commission, nor the physician who pays it dare let the parent know that the confidence placed by him in them is being thus abused. The action is reprehensible and despicable on the part of both.

Truly yours,

JAMES MACCALLUM.

In the December issue of this Journal we had occasion to write our opinion upon physicians giving a rebate or percentage to schools, based upon correspondence that had come under our notice. We again publish *in toto* the recent letters exchanged between the Bursar of Havergal Hall and our confrere in the medical profession, Dr. James MacCallum.

The statements in the former letters do not quite tally with those in the last letter, written by this representative of the aforementioned seat of learning. In former letters a "Staff of Specialists" was spoken of, also "Attending Physicians," now "only one lone clinging figure" seems to embody the sum total constituting the medical attendants heretofore referred to. Again, this last letter contains the statement that only specialists to whose offices the pupils go as patients are requested to allow the percentage on their accounts in order to pay for a chaperone. Absurd. We find among the rules for pupils issued by Havergal Hall in their pamphlet, on page 24, "If, for any reason, a pupil should require a special chaperone, a charge is made." The parent is charged for it, the physician is charged for it; how unfortunate it is that there is not somebody else to charge it to.

Pity 'tis, the custom does not still obtain, as in former years, of having at least two or three "morning" governesses, whose duty it was to accompany the young ladies to physicians, dentists, dress-makers, and on Saturdays, shopping, etc. These governesses were formerly always maintained at the expense of the schools. The memory of one of those dragonesses haunts us still, for did she not keep sentry over the adored one in the days "when we were young." Last month we asked those physicians on the staff (imaginary or real), of Havergal Hall to send in their names for publication. We again hold the invitation open; but, as we have not received any answer, we may be permitted to ask—is the staff, spoken of in letters from members of the managing fraternity of the school, only a myth, or is it a new fashion to keep the names

of reputable Toronto physicians swallowed up in mystery? This problem is worth solving, and seems about as easy as that conundrum of the silly season—"How old is Ann?"

Over the hookah, let us remark, with apologies to the scribe of Nightingale Hall, that his non-committal correspondence and his C.O.D. chaperones may be summed up in the same manner as Mark Twain closed Mrs. Eddy's book "Science and Health," remarking, "Well, that is enough to give a fellow the blind staggers."

W. A. Y.

A FURTHER ADDITION TO OUR STAFF.

It is with pleasure that we announce that Dr. Charles R. Dickson, of Toronto, who for years now has made a specialty of physiotherapy, has consented to join forces with us from the first of the new year and take charge of that department. We congratulate, not only ourselves on the addition of Dr. Dickson's name to those of our collaborators, but our readers, whom we know may look forward to regular contributions from that gentleman dealing with the practice of physical therapeutics, of which he has made such a distinct success.

W. A. Y.

THE WHITNEY GIFT TOWARDS A UNIVERSITY RESIDENCE.

MR. E. C. WHITNEY, of Ottawa, has generously contributed the sum of \$15,000 to Toronto University towards the building of a Residence for the accommodation of the students. The gift is heartily appreciated and we trust that this will be but a start, and that our wealthy citizens will follow the example of Mr. Cawthra Mulock (who, by the way, we notice has been elected one of the trustees of Toronto General Hospital as a result of his recent generosity to that institution), and contribute the balance of the sum needed, \$200,000.

We feel that Toronto University stands in need of a Residence and that, until such accommodation is provided, Toronto can hardly be called a University town. For students to live together, study more or less together, and mix with one another in their daily work creates a spirit of *bon camaraderie* that can hardly otherwise

result, and as a proof of the success and benefit accruing from University Residence life, all one has to do is to look across the sea at that world renowned university, Oxford, and note what magnificent specimens of manhood they turn out over there, the result, largely, of the physical methods employed to, first of all, make men of the students, after which the result mentally is assured. W. A. Y.

TORONTO'S NEW MEDICAL LIBRARY.

THE new Medical Library in Queen's Park is almost ready for occupation. The building has been all paid for, sufficient cash



TORONTO'S NEW MEDICAL LIBRARY, QUEEN'S PARK.

invested to cover the small annual ground rent, and a tidy little surplus is now in the bank as a nucleus of a sinking fund. It is expected that the Clinical Society and the Pathological Society will be able to hold their January meetings in the library, and, as soon as spring opens, it is hoped that the trustees will be able to commence renovating the building, so that by next autumn Toronto can boast of one of the most comfortable medical libraries in the Dominion. A great deal of credit is due to Drs. J. F. W. Ross, N. A. Powell and others for the work they have done in this connection.

W. A. Y.

EDITORIAL NOTES.

In Reference to Bovine Tuberculosis in Canada.—The inhabitants of Ontario rejoice in such plenty that near Oshawa, last autumn, apples were left hanging on the trees or rotting beneath them, because, owing to the scarcity of labor, the farmer had to go on with his ordinary farm work, and had not time to pick them. Mr. Conant, Oshawa, writes on this subject in the *Globe*, November 25th, 1904: "There is, truly, within a radius of fifteen miles of this place, enough apples now wasting to supply amply a third of a million of people. Corn, too, is strewn along our roads, having been dropped from the farmers' waggons while drawing it into the barns, enough for many of the poor of Europe. Sugar beets, carrots, turnips, mangels and other vegetables are knocking about underfoot in great plentifulness, as if of no value." Truly a wayfarer would say, "This is not the land in which bovine tuberculosis should abound," yet to read the following item, sent from London by the Canadian Associated Press, and which appeared in the *Globe*, November 1st, 1904, one would think that Ontario beef would be dangerous food, and should rightly be excluded from British markets: "A correspondent, professing intimate knowledge, writes, denying the statement in an editorial that Great Britain protects itself against a country where cattle disease does not exist. He mentions a series of experiments in different parts of Canada, where a strikingly large percentage of tuberculosis was found. He suggests that pure breeds might be imported for breeding purposes." Two things crop out in this item: (1) The deliberate statement that *tuberculosis is proved by experiment* to be present in Canadian herds, and (2) that pure breeds should be imported into Canada for breeding purposes. As it is well to have an authoritative expression of opinion on these statements, we have referred the item mentioned to Dr. Adami, Professor of Pathology and Bacteriology, McGill University, Montreal, who has had special opportunities, under the auspices of the Canadian Government, for acquiring exact knowledge of the existence of bovine tuberculosis in Canadian herds. Dr. Adami has kindly consented to give an opinion, and his article appears at page 49 of this issue.

Utilization of Fats by Tubercular Patients.—Dr. René Laufer, in a paper read before the Parisian Academy of Medicine, says: "The most evident and constant influence of fats on tubercular as well as healthy persons, consists in the retaining and saving of albuminoid matters. When different kinds of fats are given in increasing quantities to tubercular persons, the curve of elimination of nitrogen (urine and feces) is at first lowered, and then remains stationary. Therefore, after a certain quantity of fat is ingested, the fat surplus is not utilized, and is consequently useless, at least in relation to the saving of albuminoids. Fat may also be stored up in the tissues, to a certain extent." Dr. Laufer gave to one group of tubercular patients large quantities of fats (150 to 200 grams), such fats as are present in foods, and superadded fats such as cod liver oil, butter, sweet oil; to another group he gave fats in moderate quantities (150 to 200 grams), and he studied the curves of weight in these two groups of patients during from six to eight months. In those who received large quantities of fat, the weight curve rose rapidly, remained stationary, and then fell lower than the original weight, principally owing to digestive troubles, or because patients lost appetite, or because, owing to a total defect of utilization, the fats passed off with the feces without being utilized in the organism. In the second group (moderate quantities of fat) the weight curve rose slowly but steadily and constantly, so that the gain in weight was sure. Dr. Laufer thinks that from 100 to 150 grams (oz. 3.527-5.290) is the really useful maximum quantity of fat to be ingested by a tubercular patient. Note should be taken of this by physicians who may have occasion to establish a regimen for tubercular patients.

How to Diminish the Mortality of Surgical Operations.—Dr. J. A. Rivière, who manages a great Physico-Therapeutic Institute at Paris, publishes in *The Annals of Physico-Therapy* (Aug., 1904) some remarks on the methods most likely to diminish the mortality of surgical operations. "Over and above the skill of the surgeon, three important factors make for or against complete success in a surgical operation: (1) The enemy from within (antointoxication, focus of disease), (2) the enemy from without (microbes), (3) the moral condition, as affected by hope and confidence. The surgeon, who should be a psychologist, in order

to enable him to raise and stimulate the spirits of his patient, will successfully combat autointoxication with calomel, castor oil, heat and water. Antiseptics will rid him of the invading microbe, asepsis will protect him from the outside microbe. Morphine, which, especially when it is given after the administration of chloroform, arrests the functions of kidney and liver, should be employed only in exceptional cases. The same objection applies to the use of massive injections of chloride of sodium, which injure the depurative functions of the renal filter, by the surprise which they occasion and the irritation which they excite in the delicate epithelium of these organs. A kind word, dictated by sympathy and a good heart, the charitable acts which the purest sentiment of humanity commands, the hope of a speedy cure, are, besides, most effective stimulants in accomplishing a cure. They are the real dynamic regenerators of the sufferer. Surgeons and physicians have no justification for practising their art other than because they safeguard the organs of the human body and prolong precarious lives. An operation is not a victory, but rather a therapeutic defeat."

Constipation and Animal Food.—Dr. Weir writes to the *British Medical Journal* from Chemulpo, Corea (his letter appearing Oct. 1st, 1904), giving his experience, derived from practice among the Coreans, of the absence of constipation among that people. He says: "Whilst in an English hospital the average out-patient is generally in need of aperients, I have found here very few, I think less than a dozen (out of over one thousand patients), who have any constipation at all, and the general answer to a question as to the number of motions is two or three times a day." He says, further, that "Animal food is very little used by Coreans, whose staple diet is *rice, helped down by pickles and dried fish.*" Think of this, ye prescribers who rack your brains for new formulæ of purgative pills, potions, tablets, etc., to assist the indifferent peristaltic wave. Why not let the responsibility rest where it properly belongs? If the over-fed patient will eat more meat than is good for him, let him be told of his fault. Over-ingestion of meat is a serious hindrance to every preventive or curative measure. It is not so rare as some would have us believe. People who have good tables and who consume more meat than they require are seldom satisfied, and are always

"constitutionally tired." Such people, when sick, should be advised to give up their purgatives, and in exchange for chops, steaks and roasts, to try the Corean menu.

Flesh-eating and the Disposition.—Meat-eating is said to be responsible for most of the bad temper that exists in the world. A butcher, whose article is quoted in *The Dietetic and Hygienic Gazette*, June, 1904, says: "Most meat-eating people, like the English, are noted for their bad dispositions. The French, who like fruit, vegetables, salads, fish and chicken, are noted for politeness and good humor. The Japanese live on rice, fruit, sweetmeats, and fish, and don't touch meat from one year's end to another. Their temperance and delicacy at table give them the best dispositions in the world. On the streets of Japanese towns there is never any quarrelling or fighting. You never see a disturbance among that people. Tolerance, courtesy, high-bred, ceremonious manners are as prevalent in Japan as grumbling in England." The cross-grained condition arising from flesh-eating is evidently intensified on days when meat is eaten more abundantly, and this circumstance gives point to a story told by a prominent English clergyman. He congratulated an old lady on her bravery in fighting her way to church against a terrible tempest, but received the disconcerting reply: "My husband gets so cross-grained after meals that I have to get out of his way, so I might as well go to church." All of which goes to show that the doctor, who is expected to have a heavenly disposition, or else be able to assume the appearance of having one, should be a vegetarian. If he cannot become herbivorous and good-tempered like the elephants, antelopes and camels, let him not imitate the diet of the lion, the tiger, the leopard, and the rest of the carnivora, which are fierce, treacherous and mean.

The Physician as a Legislator.—In the French Senate there are thirty-nine medical members; in the United States Senate there are two; in the Senate of Canada there are nine. In the French Chamber of Deputies, the popular branch of the government, there are fifty-one medical members; in the United States House of Representatives, the corresponding branch of the American Government, there is not a single medical member; in the Canadian House of Commons, the corresponding branch of our Government, there are fifteen medical members. It is consoling

to see that physicians who, by their education, occupation and general view-point are enabled to approach sociological questions with a clearness of understanding not enjoyed by other members of society, are fairly well represented in the Senate of Canada, as well as in the Canadian House of Commons. We think it is the duty of the Canadian medical profession to endeavor to secure the representation of our profession in the Parliament and Legislatures of Canada. There is no reason why physicians, because they are physicians, should cease to exercise the duties and rights of citizenship.

Formation of Formaldehyd During the Combustion of Tobacco.—From studies made by Dr. Trillat and communicated to the Academie des Sciences, Paris, November 7th, 1904, it appears that, during the combustion of tobacco, formic aldehyd (formaldehyd) is produced, the amount of which, in the case of heavy smokers, especially those who use clay pipes, reaches several centigrams a day. Formic aldehyd and acetic aldehyd, which is also present in tobacco smoke, exist in it only in the state of combination. This last particular is of considerable importance, for it relieves a smoker of the inconvenience of inhaling small quantities of formaldehyd in the free state. Dr. Trillat's observations, which go to show the value of smoking tobacco in this germ-infested world, recall an anecdote, related by Professor J. J. MacKenzie (Medical Faculty, University of Toronto): "A certain professor of bacteriology in a German university used to obtain pathogenic cultures from the saliva of his laboratory servant, who, during the earlier period of their relations, did not smoke tobacco. After a while the servant, no doubt in imitation of the Herr Professor, began to smoke tobacco every day, and his saliva, which became sterile, was of no further use as a source of bacteria."

J. J. C.

Kress, Owen vs. Cruttenden.—On the 8th day of December, Police Magistrate Denison, in the Police Court, registered a conviction against Thos. Cruttenden, jr., who keeps two drug stores in Toronto, one at the corner of Howard and Sherbourne Streets, and the other at the corner of Gerrard and Sumach Streets, for infringement of the trade mark, duly registered in Canada, owned by Kress, Owen & Co., 210 Fulton Street, New York, "Glyco-Thymoline." The evidence conclusively showed that the defend-

ant had put up a preparation under the name of "Glyco-Thymol," in bottles almost identical to those of Kress, Owen & Co., and with labels worded *verbatim et literatim* to those of the original manufacturers. The magistrate, in registering the conviction, gave the defendant's solicitor, who hinted at an appeal, to understand that, if he entertained that idea, he would not only fine but imprison his client as the law provided. The case was adjourned for a week, at the end of which time Cruttenden, through his solicitor, gave an undertaking that he would stop all manufacture of Glyco-Thymol and destroy all labels, bottles, etc., connected with the sale of that preparation. The firm of Kress, Owen & Co. are deserving of congratulation over the result of this case. They had every reason for prosecuting Cruttenden, as it was nothing short of dishonest, and entirely contrary to the law, that he should stoop to such practices and try to rob a firm who, by strictly ethical advertising (solely to the profession) and the expenditure of about \$175,000 per annum, have secured a large sale of Glyco-Thymoline, a preparation found valuable in catarrhal conditions of mucous membranes.

W. A. Y.

PERSONALS.

DR. WM. NATTRESS has moved back into his old house on Carlton Street.

DR. C. R. DICKSON has purchased 184 Bloor Street West, and will remove there in May.

DR. CHAS. SHEARD lectured before the Unitarian Club at Webb's restaurant on the 19th ult.

DR. F. LEM. GRASSETT has been elected to represent the medical graduates on Trinity College Board.

DR. MURRAY MCFARLANE has removed to number 18 Carlton Street, formerly occupied by Dr. Uzziel Ogden.

CONGRATULATIONS to Dr. and Mrs. J. T. Clarke, 410 Bloor Street West, on the birth of a daughter on the 14th ult.

DR. BREFNEY O'REILLY returned recently from Hong-Kong, and is spending the holiday season with his father and mother, Dr. and Mrs. Chas. O'Reilly.

As it will be seen from the daily press, Dr. John Hunter, of O'Hara Avenue, has political aspirations, and at the time of writing it looks as if he will receive the nomination for West Toronto.

❁ News of the Month. ❁

DEATHS IN THE PROVINCE OF ONTARIO FOR OCTOBER, 1904.

BY CHARLES A. HODGETTS, M.D.,
Secretary Provincial Board of Health, Toronto.

THE health of the province for October, based upon the returns of 760 municipalities, may be considered highly satisfactory, as the deaths from all causes are 31 less than those reported for the same period last year, yet notwithstanding the population reporting is greater by 10,000. The most pleasing features of the returns are the reductions in both cases and deaths of all infectious diseases, with the exception of typhoid fever, there being a case decrease of 23 per cent., and in deaths, 10 per cent., as may be seen by the table below.

The total deaths recorded from all the causes are 2,091—representing a reporting population of 2,092,300—which makes a death-rate of 12.0 per cent. per 1,000, as compared with 2,122 deaths for a population of 2,081,534 for the corresponding period of last year, which gave a death-rate of 12.2 per cent. Smallpox has almost disappeared, only one case being reported for the month. Scarlet fever, also, has reached a very low point, there being 177 cases and 10 deaths, or a case decrease of 23 per cent.

Diphtheria.—As may be seen by the returns, this disease has shown the greatest decrease of any of the infectious diseases, having dropped from 541 cases and 66 deaths to 239 cases and 34 deaths, being a case decrease of 55 per cent. and deaths 50 per cent., as compared with the same month a year ago.

Typhoid Fever.—The returns for this disease show but little change over the preceding month, but compared with October, 1903, there is an increase both in cases reported and also in deaths returned. The increase in the number of reported cases is no doubt due to the fact that medical practitioners are now aware of their responsibility, and more readily comply with the Act. The marked increase in deaths would indicate the type was more virulent.

In this connection, that portion of the quarterly report of the Secretary, as adopted by the Board on November 11th last, regarding water supplies, may be quoted. Its perusal is worthy

of careful consideration by individuals as well as municipal authorities:

"It is, however, quite evident from the information to hand, that water pollution is the cause in every instance of the outbreak, which emphasizes the fact that the utmost care must be taken by health authorities to preserve their water supplies from contamination, whether the source be wells, lakes or streams. Too often the relative positions of the well or the intake pipe and the barn, stable or cesspool are not carefully considered, and a long-continued rain storm results in water contamination by reason of the large amount of surface washings carried directly into the source of supply, with the inevitable result of an outbreak either of enteric fever or some intestinal trouble, according to the specific character of the bacterial infection. To prevent this pollution, it should be the duty of each local board of health to employ an intelligent officer to examine periodically into the conditions surrounding the water supply of each inhabitant, and, if necessary, take samples for laboratory examination. Further, if pollution is found to exist, either the source of the same should be removed or condemned, and the supply from that particular source, being unfit for domestic use, forthwith stopped.

"Further, municipal authorities must be alert to the fact that what has been a source of good water supply often becomes, by reason of the rapid growth of the place, a polluted well, stream or lake, presenting a condition which at the time of the inception of the system was never considered. In the case of a town, the sewage emptied into a body of water from which the water supply is taken, has increased to such an extent that admixture takes place through the very increase in volume. In the smaller towns and villages, without public systems, the pollution of wells and springs is an ever-increasing difficulty, and it behooves the individual householder and local authorities to bear this in mind and see to it, that either of these sources are not contaminated by the placing of cesspools or stables in too close proximity to either. With the rapid growth of towns, whereby fields become, through the erection of dwellings, the abode of perhaps hundreds of persons, it cannot be expected that, what in a primitive state is pure, will remain so.

"The question here arises, what is the best course to pursue in regard to both public and private supplies?

"In view of the fact that it is almost impossible to be your brother's keeper and have a control over how and where he shall dispose of his wash sewage and excreta, and also that water is often polluted at a considerable distance from the point where it is taken for consumption, the one answer is, to filter before use, for with the proper kind of filter in use, we have assuredly

the best guarantee of always securing a drinking water which is likely to be at all times free from contamination, though to maintain this standard in the case of corporations, it requires the local authorities to place the system in charge of a competent official, and this Board should not only require an annual report from the local authorities, but should, for the interests of the general public, institute a periodic inspection of both water and sewage systems."

I would particularly point out the danger of the pollution of milk supplies by reason of the use of the contaminated well water of the farm-yard, which water is used to wash out the milk cans. Too often, I fear, is the infection spread from this source, for the cool, crystalline spring water of the farm-yard is not always free from contamination, and therein often lurks the germ of typhoid.

COMPARATIVE TABLE FOR OCTOBER—THIS YEAR AND LAST.

DISEASES.	1904.		1903	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	1	0	7	0
Scarlet Fever	177	10	232	9
Diphtheria	239	34	541	66
Measles	1	1	2	1
Whooping Cough	20	7	30	17
Typhoid Fever	265	63	178	43
Consumption	169	159	169	169
Total	872	274	1159	305

ANOTHER MUNIFICENT GIFT TO TORONTO GENERAL HOSPITAL.

IN an article in a recent issue we stated that, before long, important news would be forthcoming as to the new hospital scheme in Toronto. Our prognostications have turned out about correct, as Mr. George Gooderham, the retiring trustee of the General Hospital, a couple of weeks ago intimated that he will mark his retirement by a donation of moment to the hospital. The exact amount which Mr. Gooderham will give has not been specified yet, but Mr. Gooderham intimates that it would be in keeping with Mr. Cawthra Mulock's recent donation of \$100,000. The amount of Mr. Gooderham's donation will not be stated until the plans for the extension of the hospital assume a definite shape.

As the matter stands now, the Hospital Board has \$100,000 from Mr. Mulock, and the Ontario Government has offered \$100,000, on condition that the city of Toronto contributes a similar sum.

"We don't know quite where we are at," remarked one connected with the Hospital Board recently, "but we have already decided upon an hospital with four or five hundred beds. This we will build in units of one hundred beds or so. The hospital to be of utility for educational purposes must be established close to the University. We have not selected our site, and no one will know anything about it until we have secured the property. Mr. Gooderham's gift paves the way for making the hospital in connection with the University Medical College one of the best equipped and most important clinical hospitals on the continent."

The plans of the Board of Trustees for the new hospital are most ambitious. They want to give the medical students of Toronto University the most completely equipped clinical hospital in America. The advantages of such an hospital in connection with the University have been pointed out by such eminent physicians as Dr. William Osler, of Oxford University. It would raise still higher the standard of the medical profession in Canada.

ITEMS OF INTEREST.

To Investigate yellow and Malarial Fevers.—Dr. Wolferstan Thomas, of Montreal, a son of the late general manager of the Molsons Bank, has left Liverpool for the Amazon to investigate yellow and malarial fevers on behalf of the Association of Liverpool Merchants, headed by Sir Alfred Jones, formed for the investigation of tropical diseases.

Condemnation of the Division of Fees.—At a recent meeting of the Council of the Chicago Medical Society, Arthur Dean Bevan offered the following resolution which is to be voted on at a subsequent meeting and then, if adopted, to be incorporated as an amendment to the Constitution: "Any member who is guilty of giving or receiving a commission, or of entering into any arrangement for the division of a fee for professional services, which arrangement is not known and fully understood by the patient or party by whom such fee is paid, shall be guilty of unprofessional conduct."—*Medical Record, N.Y.*

ALOPECIA (SIMPLE).

Liq. Carbonis Detergentis	-	-	-	-	1 oz.
Glycerini (Price)	-	-	-	-	6 drachms.
Aquæ destillatæ	-	-	-	-	4 ozs.

"*A Treatise on Diseases of the Skin.*"

T. M'CALL ANDERSON, M.D., Glasgow.

The Physician's Library.

BOOK REVIEWS.

The After-Treatment of Operations. By P. LOCKHART MUMMERY, F.R.C.S. (Eng.), B.A., M.B., B.C. (Cantab.), Hunterian Professor, Royal College of Surgeons, etc. Second edition. London: Baillière, Tindall & Cox.

It is somewhat of a treat nowadays to pick up a book other than "My First Hundred Operations for Appendicitis," or "My Last Hundred Cases" of what-not, and though to the one before us the charge might be made that there is too much "spoon-feeding," yet it has its value. The young practitioner is brought face to face with a serious emergency requiring immediate operation. This he does successfully, but his patient may lose his life through unskilled handling in the after-treatment. Here is a book that should be on the table of every general practitioner, for even if the surgeon has been called in, it is the family doctor in many cases that watches the after-progress of the case, and in this little book the detail of the after-treatment is given in a lucid manner.

One can hardly follow the author in all his ideas, namely, to allow the patient to be the judge of what is good and what is not good for him after the operation, yet on the whole his remarks are to the point. Particularly valuable are the hints on posture as relating to the patient's progress, and if followed many hours of discomfort will be saved.

In this second edition a section is added on the smoking and drug habits. The chapter on appendicitis has been enlarged, and that on shock and collapse has been revised, so that it is quite up-to-date.

F. N. G. S.

Light Energy. Its Physics, Physiological Action and Therapeutic Applications. By MARGARET A. CLEAVES, M.D., Fellow of the New York Academy of Medicine; Fellow of the American Electro-therapeutic Association; Member of the New York County Medical Society; Fellow of the Société Française d'Electrothérapie; Fellow of the American Electro-Chemical Society; Professor of Light Energy in the New York School of Physical Therapeutics; Late Instructor in

Electro-Therapeutics in the New York Post-Graduate Medical School. With numerous illustrations in the text, and a frontispiece in colors. New York: Rebman Company, 10 West 23rd Street, cor. 5th Ave.; London: Rebman Limited, 129 Shaftesbury Ave., W.C. 1904. Pp. 827. Canadian agent: Charles E. Wingate, 2 Richmond Street E., Toronto.

The scope of this work is sufficiently indicated on the title page. In general one may say that it presents the difficult subject of which it deals in a most fascinating manner. Whilst it is true, as the author asserts in her preface, that "light energy is as old as the sun, and so almost are its therapeutic uses," yet the average practitioner of medicine to-day has, we fear, little knowledge of the physical properties of light or of their therapeutic application. We welcome this book as one of the most timely publications among recent medical works. The subject is dealt with in a thoroughly scientific manner. Clear judgment, based upon extensive experience, is obviously brought to bear upon each phase of the varied problems which are passed under consideration.

The writer of this review would like to give the reader a definite idea of the scope of the work, in the hope that by so doing the profession may appreciate the extent and importance of the field covered. The two opening chapters deal with the physics of light energy and radiant heat. Several chapters are devoted to the action of light on living matter. Thus there is discussed the action of light energy upon elementary forms of life, upon vegetable organisms, upon bacteria and upon higher organisms. A chapter is devoted to the physical effects and biological action of light energy on the skin, the circulation, the nervous system, and upon metabolism. In succeeding chapters there is discussed the therapeutic application of light energy in sunbaths, electric arc baths, incandescent light baths, the concentrated visible chemical frequencies of the solar spectrum, blue light, red light, and ultra violet rays. The use of vacuum tube discharges is dealt with, and a chapter on the X-rays is added. Alpha, Beta and Gamma rays of radio-active substances are described as to their physical properties and their therapeutic uses, as also are fluorescence, fluorescent stimulation and sensitization—their therapeutic uses in cancer, lupus, condylomata, chancre and malaria. The final chapter is on the pernicious effect of sun-light, insolation, and the pathological effects of electric lighting. The Roentgen ray is not dealt with in this book, as the author considers that the subject has been most exhaustively covered by others; but it is referred to incidentally in its relation to light and radio-active substances, "in order to establish as clearly as possible the indication for the one or the other."

One reference to the potency of light energy may be quoted. The author states: "The inconceivably rapid and minute oscillating light corpuscles of the invisible region beyond the violet have a chemical energy so intense as to destroy micro-organic life, to wreck the molecules of nitrite of amyl, of iodine vapor, and to produce erythema of the skin and underlying changes; effects dependent upon the accumulation of the periodical strokes of the oscillating swing until the atoms upon which their timed impulses impinge are jerked asunder. It is this energy in its various manifestations to which this volume is devoted. When light is conceived of in this manner, the reason for its power in continuing life and in curing disease becomes evident at once."

Not the least interesting portion of the book is the part which deals with the action of light on living matter; for example, the summary of experiments on the growth of fruit and flowers under continuous light—electric light at night and sun light during the day. Increased rapidity of growth was noted, and the fruit proved to be of larger size and improved flavor. "Wheat, barley and oats grew so rapidly that they fell to the ground of their own weight." The bactericidal power of light is shown to exist to a marked degree. This was first pointed out by Downes and Blunt in 1877. Since that time numerous investigations have been carried out. The author believes the most important factor in the human organism is to be found "in the effect of the light energy upon the nutritive bases of bactericidal growths *pari passu* with its physiological action upon the entire blood stream. This action is characterized by an increase in the amount of oxygen, which experimental data show to be so prejudicial to the well-being of micro-organisms." Outside the living organism light is shown to have a bactericidal action, too. In discussing the action of light upon hygiene and sanitation, the author states: "The habit of keeping the window-shades down, a very common practice, even in the absence of direct sun glare on the window, is in direct opposition to fundamental physiological principles. Sunlight is not only purifying to our atmospheric environment, in its destructive action upon micro-organisms, thereby preventing disease, but it has still a more deep and intimate human relation of a sanitary nature, for an abundance of light energy is a necessary condition of mental and bodily well-being." . . . "Thus the chemical activities of light serve in hygiene, sanitation and disease: in the one instance to maintain health, in the other to disinfect or destroy pathogenic organisms, and in the latter to check the inroads of disease by increasing not only the red blood supply, but the white as well, and the functional activity of the entire organism."

One of the most interesting chapters in the book is on radium, where a most instructive account is given of the pioneer work

of Madame Curie. The work of Professor Rutherford, of Montreal, is mentioned, and a reference is made to the experiments of Professor Macleiman, of the University of Toronto, where he found that rain caught in a vessel and immediately evaporated to dryness, imparted a radio-activity to the vessel.

This review has already extended beyond the ordinary limitations allotted for such works, otherwise the writer might be tempted to continue, but it is hoped that enough has been said to interest the profession in the treatise under discussion. One cannot refer in detail to the portion of the work which deals with the therapeutic application of light energy in its various forms, but suffice it to say that the treatment of this part of the author's subject is most suggestive and instructive; it is written in a moderate style and in a thoroughly scientific manner. Without the slightest reservation the book is to be commended as of the highest importance, and well worth the most careful study of thoughtful students in our profession who are anxious to be abreast of the times, and who desire to be possessed of the knowledge necessary to employ intelligently light energy as one of the most powerful therapeutic agencies which exists for the maintenance of health and the treatment of disease.

The publishers have produced a truly beautiful volume, printed on excellent paper, well illustrated and well printed. A. P.

A Text-Book of Clinical Diagnosis. By Laboratory Methods. For the Use of Students, Practitioners and Laboratory Workers. By L. NAPOLEON BOSTON, A.M., M.D., Associate in Medicine and Director of the Clinical Laboratories of the Medico-Chirurgical College, Philadelphia; formerly Bacteriologist at the Philadelphia Hospital and at the Ayer Clinical Laboratory of the Pennsylvania Hospital. Octavo volume of 547 pages, with 320 illustrations, many of them in colors. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. Cloth, \$4.00 net; sheep or half-morocco, \$5.00 net.

One great advantage in the description of the various methods of investigation suggested in this manual is that they are of such a character that, while they furnish a guide to a correct diagnosis, they can be carried out both by the practitioner in his office and the student in the laboratory. The various procedures in clinical technique are so described that they can be very easily followed, the student being led from the simpler to the more difficult methods by easy steps.

Serum diagnosis, a thing hitherto belonging only to the expert, has been largely gone into and arranged in a simple form. The more recent methods of examination and staining of the blood are

described and illustrated by original drawings. These, with the later methods for the estimation of sugar, uric acid, etc., etc., are well considered.

A very useful and practical portion of the volume is given up to the subjects of animal parasites, diseases of the skin, transudates and exudates, together with secretions of the eye and ear.

To the progressive student or practitioner, and to the practitioner who requires a ready reference book, this volume will be found of great value, as it is a guide to the most recent methods in clinical diagnosis, and contains a description of the latest work done in this subject.

A. J. J.

Hand-Book of Diseases of the Ear. For the use of Students and Practitioners. By RICHARD LAKE, F.R.C.S. (Eng.), Lecturer on Practical Otology, Medical Graduates' College. Second edition. London: Baillière, Tindall & Cox. 1904.

Of this second edition with some new illustrations and additional letter-press, I have formed the same favorable opinion as of the first. I believe that when this little book once becomes known it will, in diseases of the ear, hold the same position as Swanzy or Nettleship on diseases of the eye.

J. M.

The Christmas number of *The American Journal of Nursing* (official publication of the trained nurse profession) contains a number of exceptionally interesting articles, among which is one by Bishop L. H. Brent, D.D., entitled the "Protective Forces of the World"; "What Made Life Worth While," a Christmas story by Lucy Rider Meyer, A.M., M.D., of Chicago; "A New Cranford," being a more or less true account of an experiment, by Miss Isabel McIsaac, late Superintendent of the Illinois Training-School; "Children's Island Sanatorium," an account of one of the great summer hospitals, by Maude S. Curtiss, Volunteer Worker of the Sanatoria Association; "Infant Feeding," by Mrs. Helen Marion Warfield, of the Children's Hospital, Boston; an illustrated article describing the new Club-House of the New York Alumnae; a most interesting description of a visit to the hospitals of Constantinople, with a photograph of the hospital where Florence Nightingale did her great work, by Miss L. L. Dock; the first full report of the Board of Nurse Examiners under the Regents of the University of New York State, and many items of personal and professional news of interest to the nursing profession. This number has a special cover, many illustrations, and is exceptionally attractive. The subscription is \$2.00 a year; single copy, 20 cents. It is published by The American Journal of Nursing Co., 227 S. Sixth Street, Philadelphia, Pa.

Extract from *Medical Annual*, 1904.—Peroxides of Magnesium and Zinc.—Under the names Hopogan and Ektogan, two new peroxides have been put upon the market. They possess the power of generating, under certain conditions, either ozone or nascent oxygen. Hopogan contains from 15 to 30 per cent. of peroxide of magnesium, $Mg\ O_2$, while Ektogan contains 25 to 60 per cent. of the peroxide of zinc, $Zn\ O_2$. In contact with weak, organic acids or bodies possessing acid properties, these peroxides readily give off oxygen, and thus have considerable power as antiseptics and antifermentatives. Hopogan is used for internal administration as a gastro-intestinal antiseptic, while in dermatological practice Ektogan enables us to produce nascent oxygen at the site of the disease. For this purpose it is only necessary to apply to the moistened skin or wounded surface a mixture of dry powdered Ektogan and an acid body. Similarly, the two peroxides enable us to produce, at will, nascent iodine, either for internal or external use. For the former all that is required is to mix the Hopogan with a dilute solution of potassium or sodium iodide. The stomach contents are always sufficiently acid to liberate the iodine in a nascent condition. Frenkel* gives a series of tables, which enables the amount of iodine thus liberated to be readily calculated. For external purposes, the mixture of Ektogan, potassium iodide, and the acid substance is used. The best organic acid is tannin, but tartaric, citric, benzoic and salicylic acids are also suitable, as well as substances possessing acid properties, such as thymol, alum and potassium bitartrate.

NEW MEDICAL WORKS AND NEW EDITIONS.

The following are a few of the new works on press, and which will be published shortly by the well-known firm, Baillière, Tindall & Cox, Covent Garden, London: "Manual of Anatomy" (University Series), by Dr. A. M. Buchanan, Professor of Anatomy, Anderson's College Medical School, Glasgow; "Manual of Obstetrics" (University Series), by Dr. Henry Jellett, of Rotunda Hospital, Dublin; Professor Bianchi's (Naples) "Psychiatry"; "Surface Anatomy," by Dr. J. Gillman Moorhead, of Trinity College, Dublin; "After Treatment of Section Cases," by Dr. W. J. Stewart McKay, Senior Surgeon to the Lewisham Hospital for Women and Children, Sydney. New editions of Jones' "Manual of Diseases of Women"; "The Roentgen Rays in Medical Works," by Dr. David Walsh, Physician to the Western Skin Hospital, London, and Walsham and Paterson's "Hand-Book of Surgical Pathology." Any or all of these books will be obtainable either from J. A. Carveth & Co., Limited, or Chandler & Massey Limited, Toronto.

*Le Prog. Med., April 4, 1903; Ber. d. d. Pharm. Ges. XXX.; Jour. d. Pharm. et de Chem., No. 6, 1903.

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NO. 2.

Original Contributions.

THE ORTHOPEDIC TREATMENT OF DEFORMITIES AND DISABILITIES RESULTING FROM PARALYSIS.*

BY B. E. MCKENZIE, B.A., M.D., TORONTO.

EVERY joint should be able to maintain easily a condition of balance. If at the knee the quadriceps extensor be paretic or completely paralyzed, while the hamstring muscles still retain their contractile power, the knee will soon assume a condition of permanent flexion. It will be impossible to extend the leg so that it may functionate properly in supporting the body weight.

Another condition at the knee, which is not seen nearly so frequently, is that of hyperextension when the hamstring muscles are greatly disabled through paralysis, and the extensor muscles still retain a fair proportion of their normal strength. This is shown well in Fig. 1, where the knee is hyperextended through paralysis of the flexors.

If in the ankle the anterior group of muscles be paretic, while their antagonists retain their normal power, a condition of equinus will result (Fig. 2), the heel being drawn upward, while the anterior portion of the foot drops downward so as to interfere with the normal movement. In a similar way, if the peronei muscles be disabled, the internal group, namely, the tibiales and the long extensors, will draw the foot inward so as to bring about a condition of varus and supination. This is shown in Fig. 3, left foot.

*Read at the Meeting of the Toronto Medical Society, November 24, 1904.

A very troublesome condition of flatfoot also results when the internal group of muscles is weak, permitting the foot to assume a condition of pronation, as seen in Fig. 4, right foot.

The disability experienced by a patient suffering from paralysis is not due alone and directly to lack of muscular power, but results partly from violation of the law of balance which has just been referred to. If some plan be employed so as to maintain a condition of balance, the efficiency of the part will be greatly increased, and the discomfort and disability much relieved. The



Fig. 1.

essential object in view in the treatment of such cases is to maintain this position of balance.

The most common cause of this condition of lack of balance is anterior poliomyelitis. It results also, though less frequently, from congenital disproportion between the parts which normally should maintain the balance, from traumatism and from other forms of paralysis. One of the marked characteristics, of the common infantile spinal paralysis is that groups of muscles which act together functionally are most disabled; while one group of muscles at the knee may be affected none or little, their

opponents may be greatly disabled. The same is true of the varying groups of muscles at other joints.

Treatment.—During the first few weeks after the onset of the paralysis much may be done by the use of massage and electricity. It is seldom, however, that the patient is seen at this time by the surgeon. He sometimes sees the patient before deformity has resulted, and it becomes his duty to prevent its occurrence. More frequently, however, deformity is added to the disability, and the continued use of the limb and the lapse of time

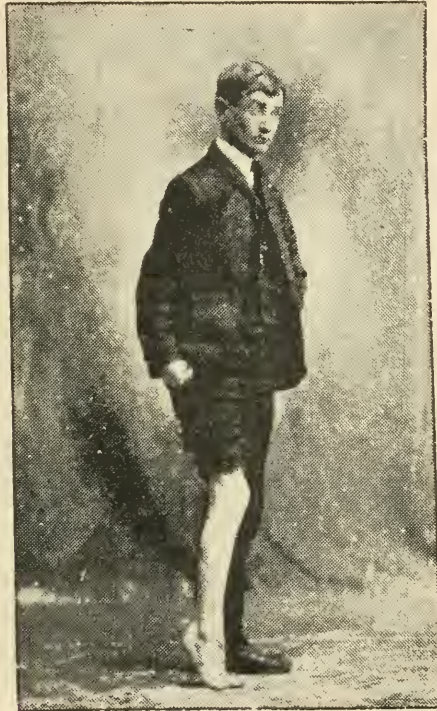


Fig. 2.

increase the amount of the deformity, as will be seen by reference to Fig. 3. In this case the weight bearing upon the feet, which are already so displaced as to be unable to support the weight of the body, will carry them further and further away from their normal position.

Before the occurrence of deformity, or even when deformity of a moderate degree has occurred, mechanical appliances may often be used with great advantage. The most generally required, and among the most effective of these, may be found in boots which are properly constructed. A child who suffers from infantile paralysis, affect-

ing the inner group of muscles at the ankle so that the foot becomes greatly everted in weight-bearing (as in Fig. 3, right foot), may have a boot so constructed as to be able to hold the foot in the normal position. This not only serves to benefit the child while it is worn, but it also holds the foot in a corrected form while growth occurs, so as to prevent the extreme deformity which would result if the foot were not held in place.

Similarly, if the outer group of muscles be paralyzed so that the foot becomes inverted (as in Fig. 3, left foot), then, if seen at an early stage, a boot may be so made as to prevent the foot from becoming supinated. In cases where the tendency to turn over is very marked, a boot alone will not suffice to hold the foot directly in the line of weight-bearing. A brace, consisting of a bar at the outer



Fig. 3.

side, when the tendency is toward pronation, or at the inner side, when the tendency is toward supination, may be employed. A strap should then be fastened, in the case of pronation, to the inner side of the boot, and pass about the bar at the outer side of the leg, or be placed upon the outer side of the ankle and be carried around the bar at the inner side of the leg, when the tendency is toward supination. Such simple means prove very effective in retaining the foot directly under the body weight. In a similar manner, a night brace may be employed to hold the

foot in the correct position. The use of such a simple brace at night is of vast importance. It is probable that the deformity which results in many cases occurs more during the night than when the patient is walking about in the day-time. There are some conditions such that the weight of the body tends to hold the foot in the correct position instead of disturbing its balance. While lying in bed, however, and the weight of the bed-clothes is resting upon the anterior part of the foot, deformity frequently occurs, and a very simple brace holding the foot in the correct position during the night causes but little inconvenience to the patient and is a very marked agency in preventing deformity.



Fig. 4.

In such a case as that shown in Fig. 1, where the knee is hyperextended, a brace extending from the boot to the perineum, and having an automatic lock corresponding to the knee-joint, may be employed. This automatic lock holds the leg in extension in walking, so that the limb, which otherwise would be unable to bear the patient's weight, can do so with security.

It is not practicable here to describe all the different forms of disability which might result. The foregoing illustrations are selected from those which occur most frequently, and will serve to illustrate the mechanical means which may be employed at the different joints according to the indications.

One important distinction, however, should be pointed out. The upper extremity is employed in fine and delicate work. It

is necessary that the fingers should be able to handle a pen or needle, tie a knot or finger a piano or violin. Failing to do this work, the upper extremity falls much below its normal efficiency. The lower extremity performs its duty in acts which require a much coarser muscular adjustment. If the limb can be made to bear the body weight, and to convey the individual from place to place, it thus performs reasonably well all the duties for which it has been designed. This distinction has an important bearing upon treatment. Much may be done which will keep the limb



Fig. 5.

so adjusted under the body weight as to enable the individual to use it with a fair degree of comfort and efficiency, whereas treatment which would be effective for the upper extremity is much less available. It is found, also, that the lower extremity is disabled through paralysis very much more frequently than the upper; hence, we are called upon to deal in a surgical way with the lower limb much more commonly than with the arm and hand with a view to remedying paralytic defects.

In recent years much has been accomplished also in an opera-

tive way. The simplest form of operation called for, and that most frequently required, consists in cutting the structures which are contracted, and which in that shortened state prevent the part from being placed directly in the line of weight transmitted through the limb. For example, when the foot has been long supinated and in a condition of varus, the muscles at the inner border of the leg and foot are much shortened, and also the ligaments and fasciæ of that part. These may, in the great majority of cases, be cut subcutaneously, thus permitting rectification of

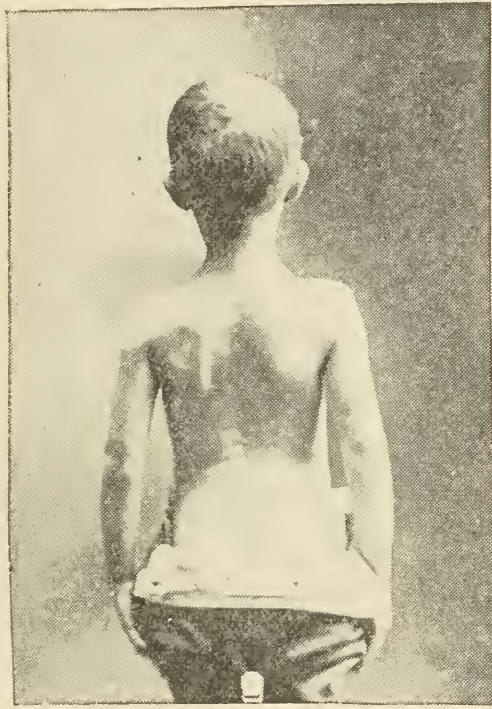


Fig 6.

the deformity. There are few tendons in the lower extremity which may not require, under varying conditions, thus to be cut. There need be no hesitation when tendons, fasciæ or ligaments have thus been cut subcutaneously, in making a full replacement of the deformity. It is necessary that it should be done with careful, aseptic precautions, and that the limb shall be maintained in a corrected position for some weeks thereafter.

For this purpose there is no form of splint which is superior to that made from plaster-of-Paris. After incising such tendons

and fasciæ as may require cutting, sometimes a large amount of force must be employed to effect the necessary replacement. In such a case as that shown in Fig. 4, the part of the foot anterior to the mid-tarsal joint must be brought upward, and when the plantar fasciæ and ligaments have been cut, it requires a powerful force to accomplish the desired result. It was largely to meet the indications in such a case as this that an instrument was devised, calling into exercise the use of the lever. By this means the foot may be thoroughly straightened out and the concavity of the plantar surface obliterated.

A second means of dealing with tendons has also been largely practised within recent years. If the peronei muscles be unable to counterbalance and antagonize the muscles at the inner border of the leg and foot, a condition of balance may be restored by transferring one of the inner groups of muscles to the outer border of the foot and inserting it so as to reinforce the outward pull. This has been referred to quite largely as "tendon grafting," "tendon transposition," "tendon transplantation," etc. The efficient muscle thus transferred may be grafted into the tendon of the paretic muscle at the outer border, or it may with great advantage be carried under the periosteum there and so sutured as to give direct insertion into the bone.

This mode of restoring balance has given a fair degree of satisfaction, but has proved less satisfactory than was expected. It is a plan which is very attractive and reasonable looking, and increased thoroughness and efficiency in technique is bringing about results which are more satisfactory. It permits of being employed over a large field, as there are few joints where the relation of parts may not be altered by such muscular transference.

Both operations are sometimes called for, and may be employed so as to greatly increase efficiency. The term "flail joint" is sometimes employed to signify a joint the muscular control of which has been entirely lost. If all the muscles about the ankle joint have been so disabled that there is no power to move the foot in any direction, then there results a condition of great insecurity and danger in the attempt to have the foot bear the body weight. A mechanical appliance may sometimes be employed so as to accomplish this end with a fair degree of success, but an operation which will secure a synostosis between the leg and foot is much more satisfactory. If an incision be made, horse-shoe shaped, about the external malleolus, so cutting the ligaments as to permit the entire inversion and dislocation of the foot, the bones at the ankle joint will be fully exposed, and if sufficient be removed from the upper surface of the astragalus and from the lower ends of the tibia and fibula, and the parts removed be so adjusted as to permit an exact fit of the remainder of the

astragalus into the notch between the internal and external malleolus, a firm, bony ankylosis is likely to result. This secures promptly the most efficient weight-bearing foot that can be obtained in the case of a flail joint at the ankle.

Similarly, an excision at the knee may be made so as to secure a very safe and weight-bearing limb, which before could be rendered efficient for this purpose only by the use of a mechanical appliance such as was described above—a knee-brace locking spontaneously. In obtaining ankylosis at the ankle joint it is well that the plantar surface of the foot should be at right angles

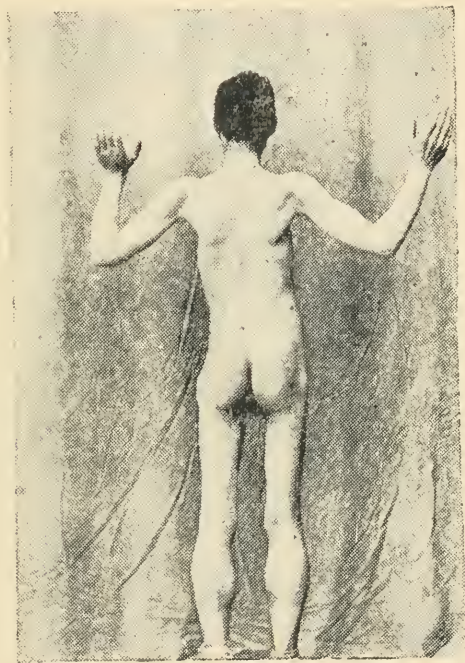


Fig. 7.

with the axis of the leg and that care should be observed to prevent an undue degree of either pronation or supination. In thus operating at the knee it is well to have the leg slightly flexed upon the thigh so that the angle formed will be about 170, or not larger than 175 degrees. This slight degree of flexion enables the patient to walk better, and is more advantageous when sitting down.

Either after operative work or the use of mechanical appliances, or sometimes where these means are not available, educational methods may be employed with advantage. Many of the

deformities have either entirely resulted or have been largely due to a lack of personal attention on the part of the patient. Educational work, such as may be done in the gymnasium, may be employed to train a child, whose inner group of muscles at the ankle is weak, to so hold the foot as to greatly overcome the inconvenience and disability of paretic flat-foot. The same is true largely of deformities of the spine, which very frequently arise from paralysis, such as that shown in Figs. 5 and 6. The condition of the spine, shown in Fig. 5, was present shortly after the onset of an anterior poliomyelitis. Shortly after the acute stage was passed, the boy was instructed every day how to hold his body in a more erect position, and exercises and massage were employed so that by these means, and through the natural tendency there is toward recovery in the early years of this affection, recovery was almost complete.

There are many forms of paralysis where the efficiency of the disabled part may be very greatly increased by judicious, persistent, educational work in the gymnasium. This is a field which has been largely neglected, but which, associated with massage, is effective in the accomplishment of great good in the treatment of some cases disabled through paralysis.

A comparatively large number of children who are unable to walk at the usual age will be found to be affected with spastic paralysis. Unfortunately, a large percentage of these cases are defective mentally, and such mental defect becomes a serious barrier in the way of treatment. In the ordinary cases which present themselves thus affected with spastic paraplegia, there are usually deformities resulting from muscular contracture.

The first step in treatment should be the correction of such deformity. The contracted groups of muscles most commonly found are the adductors of the thighs, flexors of the knees, and the inner groups of muscles at the ankle. The first step in treatment should be sufficient tenotomies to enable one to overcome such contracted conditions. Tenotomies and force employed at the time are not sufficient; but braces, especially such as can be used at night, must be employed to maintain the corrections. Following this, very patient and long-continued educational methods will often bring about great improvement in this very discouraging class of cases. It is probably unwise to make much attempt to improve the physical state of such patients as are far below par mentally. A considerable proportion of these patients, however, are intelligent and ready to give a hearty co-operation in the efforts that are made for their betterment. In such instances the results are sometimes very gratifying. When once the lower extremities have been brought directly under the individual, so as to be available for normal support and locomotion, the control

of the individual over the extensors, and their efficiency, may be greatly improved by an arrangement which will keep the patient in the erect position while efforts are made in learning to walk.

We have in our gymnasium a trolley so arranged that a small car runs upon a track at a height of about fifteen feet from the floor. Suspension straps passing under the chin and occiput and connected by a rope with the trolley car, hold the patient in an erect position while he employs his feet, or pulls upon a rope with his hands, to propel himself along the floor. Thus the person who is unable to bear his weight or to stand up, is so helped that he may exercise the disabled parts and become educated in locomotion.

Many of the cases which are disabled from paralysis present great discouragements when an effort is made to effect improvement in their condition, but it is only justice to the surgeon to remember that their present condition is often a pitiable one. Without some aid many of them never can learn to walk, and will be dependent upon some help to move about with crutches or in a wheel-chair, others will go about with much inconvenience and suffering. The effort of the surgeon must not be expected to bring about a normal condition. He has accomplished his work and met the indications when he has in any degree rendered the working power of the individual more efficient, when he has improved the attitude, the bearing, the walking of the patient, and when he has lessened deformity, which is so disagreeable to view. Fortunately, however, in many of the cases he is able to reach a standard which goes considerably beyond this, and a few patients are able to rejoice in a degree of activity and in an appearance that so nearly approaches the normal that strangers are unable to recognize the fact that a defect has ever existed.

CLEANING MILK BY CENTRIFUGAL FORCE.*

BY PROFESSOR F. C. HARRISON,Bacteriological Department, Ontario Agricultural College, Guelph, Canada.

CLARIFIED milk, or milk that has been passed through a separator, has been recently quite extensively advertised. The effect of this method of cleaning milk is similar to that of the gravel filters, and according to Backhaus, 95 per cent. of the mechanical impurities (hairs, manure particles, etc.) are eliminated. The separator divides the milk into three parts, the slime which adheres to the bowl of the machine, the skim-milk and the cream. Several investigators have given us data of the number of bacteria which are found in these three products. Thus Popp and Becker found the germ content, per c.c. of the whole milk, to be 72,954; of the cream of this milk, 58,275; the separator skim-milk, 21,735, and the separator slime, 43,891.

Scheurlen found in one litre of milk 2,050,000,000 of bacteria, and after separation, 1,700,000,000 in the 200 c.c. of cream, 560,000,000 in the 800 c.c. skim-milk and 18,000,000 in the 6 c.c. of slime.

Other investigators have also shown that centrifugation does not decrease the number of bacteria in milk. Thus, Fjord and Fleischmann claim that centrifugal separation has little value as a means of purification, and Conn states that "milk after passing through a centrifuge, although it contains less gross impurities, shows more bacteria than before. This is explained by the fact that masses are broken up, and large numbers of bacteria liberated," and, again, the same writer says, "centrifugal purification does not materially affect the bacteria, for there seem to be about as many after treatment as before."

Niederstadt obtained similar results, for he found that by the centrifugal treatment of 300 litres of milk, about 130 grams of sediment were obtained. The cream was richer in bacteria than the sediment. The separator effected no purification of milk from bacteria, and 75 per cent. of the bacteria went into the cream.

Dunbar and Kister, in an exhaustive series of experiments, found in four instances fewer bacteria after separation, the average of these four instances being as follows: Raw milk, 446,000 per c.c.; centrifuged milk, 146,000 per c.c. But in the remainder of the experiments, twenty-four in number, more bacteria were found in the separated milk, the averages in this case being: Raw milk, 1,400,000 per c.c.; centrifuged milk, 2,200,000 per c.c.

*From the Transactions of the Canadian Institute, 1902-3.

It would seem from these figures that the smaller the number of bacteria present in the whole milk, the more efficient was the separator in reducing their numbers.

Eckles and Barnes have also investigated the purification of milk by the centrifugal separator. They found a large propor-

THE BACTERIAL CONTENT OF MILK BEFORE AND AFTER SEPARATION.

Date	BEFORE SEPARATION.		AFTER SEPARATION.		MORE BACTERIA AFTER SEPARATION + OR LESS -
	TOTAL NO. OF COLONIES.	LIQUEFYING COLONIES.	TOTAL NO. OF COLONIES.	LIQUEFYING COLONIES.	
April 8	447,000	25,000	775,000	64,000	+
" 8	391,000	23,300	1,000,000	196,000	+
" 10	491,000	6,500	529,000	18,700	+
" 10	442,000	7,500	469,000	16,000	+
" 12	1,351,000	88,500	2,495,000	271,000	+
" 12	1,990,000	67,500	2,070,000	110,000	+
" 17	1,958,000	4,250,000	21,600	+
" 17	3,000,000	3,800	3,750,000	9,600	+
" 19	1,830,000	6,600	2,700,000	30,700	+
" 19	2,500,000	6,000	2,800,000	25,700	+
" 22	1,100,000	4,200	1,160,000	10,850	+
" 22	1,200,000	10,850	1,200,000	18,750	+
" 24	2,000,000	15,000	2,000,000	10,000	-
" 24	2,000,000	11,000	2,250,000	13,000	+
" 26	996,000	6,000	1,100,000	12,600	+
" 26	1,100,000	11,000	994,000	8,600	-
" 28	2,700,000	4,800	2,900,000	12,000	+
" 28	3,000,000	13,000	2,700,000	7,600	-
May 1	714,000	22,800	790,000	56,000	+
" 1	646,000	30,000	730,000	32,000	+
" 3	950,000	38,000	908,000	36,000	-
" 3	832,000	26,000	964,000	38,000	+
" 7	530,000	30,000	710,000	40,000	+
" 7	480,000	13,000	805,000	22,000	+
" 17	2,250,000	31,000	2,470,000	61,000	+
" 17	2,060,000	6,000	3,000,000	61,000	+
" 20	2,300,000	2,750,000	+
" 20	2,800,000	2,300,000	-
" 22	16,000,000	20,000	15,000,000	19,000	-
" 22	12,000,000	26,000	17,000,000	26,000	+
Average	2,359,000	19,800	2,759,000	44,540	+

tion of the bacteria removed by centrifuging, but no enhancement in keeping quality.

Russell, in a private communication to the writer, expresses his opinion thus: "I do not think clarification is worth the trouble, unless the milk is exceptionally dirty."

At the suggestion of the Ontario Department of Agriculture,

we (my assistant, Dr. Streit, and myself) have reinvestigated this subject.

A power belt separator was used, run at the speed indicated by the manufacturers. The milk came from farms in the vicinity, and was of average quality, similar to the ordinary factory supply. About 150 pounds of this milk were thoroughly mixed in a sterilized can with a sterilized stirrer. A half-pint sample of the milk was taken in a sterilized jar, the rest of the milk being put through the separator. The cream and skim-milk were caught together in a sterilized can, and were again thoroughly mixed with a sterilized stirrer, and another half-pint sample of the clarified sample was taken. Both samples were immediately carried to the laboratory, where suitable dilutions were made and plates poured.

The culture medium used was whey gelatiné, with 1 per cent. of peptone. The plates were kept at 20 deg. C., and counted at the end of forty-eight or seventy-two hours, depending on the size of the colonies. In most cases the plates were counted by each of us independently, so as to reduce the personal equation.

Each result given in the table is the average of four plates, and thus the gross average represents the numerical results obtained from 240 plates or analyses.

A perusal of the table will show that on six occasions there were fewer bacteria after separation than before, and on twenty-four occasions more bacteria present after clarification than in the raw milk.

Another striking fact brought out by this investigation is the large increase of liquefying colonies in the separated milk. The bacteria, which liquefy gelatine, are usually harmful, some are spore-producing germs, and they give rise to off flavors in both cheese and butter. Many of this class are present in manure, on particles of fodder, etc., and our results seem to show that these bacteria exist in clumps or masses in such material, and the centrifugal process breaks these up and distributes them through the milk.

These results obtained at Guelph are identical with those obtained by Dunbar and Kister, and go to show that centrifugal purification, as far as bacteria are concerned, is ineffectual.

Selected Articles.

DR. WILLIAM OSLER, THE NEW REGIUS PROFESSOR: HIS LIFE AND WORK AT JOHNS HOPKINS.

THAT Dr. William Osler, of Baltimore, whose recent appointment by King Edward as Regius Professor of Medicine at Oxford University, has awakened national interest in two countries, at least, will within a few months, or possibly a year from the time he enters upon his new duties, be knighted, is whispered in the circles where the great physician's intimates are to be found.

More than that, it is understood that the peerage will, in him, be given another member ere many years have flown by.

Dr. Osler, it is definitely announced, will sever his connection with Johns Hopkins Hospital next June, and will assume at once his new office under the patronage of His Majesty.

In several ways Dr. Osler may be called the first physician in America. By many he is considered the greatest medical man in the United States, and in his own particular line, that of consultant and teacher, as the greatest in the world. He is the first American physician upon whom has been bestowed an honor like that approaching the regius professorship by any foreign country. The distinction which comes to him by favor of the King of England is the very greatest that can come to any medical man in the world, and it is gratifying to the recipient and his friends that not a word of criticism, in any country, has been uttered, and this in the face of the fact that Dr. Osler's name will lead the list of all the great names in the medical profession of England during the remainder of his life.

Among medical men everywhere, the regius professorship of Oxford is considered the highest reward, and the consummation of the loftiest ambition a physician may aspire to. Aside from the great honor there is a material side to it which any physician might well covet. The salary attached to the position is relatively small—\$10,000 per year—but medical men say that the practice which comes unasked to the chair holder is worth ten times as much.

DUTIES OF REGIUS PROFESSOR.

Beyond the mere money question, however, is the congeniality of the life it embraces for a man of the scholarly ambitions of Dr.

Osler. At his disposal is not only the time but the opportunity for research work that he so highly prizes. He, as regius professor, is practically a free lance. He comes and goes as he sees fit. He is not held down by arbitrary rules or regulations. He is chairman of the faculty, subordinate to no one on earth—not even the King. He conducts either personally or by deputy all examinations and no one may receive a degree that is not signed by the regius professor. He is considered throughout the British Empire as the highest medical authority, not only of the King's realms, but of the entire world. He is the one the King most delights to honor when occasion demands.

Dr. Osler, in a letter to a friend recently, said: "If success consists in getting what you want and being satisfied with it, my life has been a success." This will do away with the idea that Dr. Osler was at any time averse to accepting the honor King Edward has bestowed upon him.

ALWAYS A BRITISH SUBJECT.

The new regius professor was born in Canada and has ever maintained his loyalty to the British Government. His son was registered at the British consulate in this city. He married the widow of the famous Dr. S. W. Gross, of Philadelphia, who, before her first marriage, was Miss Grace Lindsee Revere, of Boston. Most of his later professional career has been divided between Philadelphia and Baltimore.

Dr. Osler is not an old man—he is 55—and as his constitution is of the rugged kind that means great longevity, he it is hoped will long enjoy the fruits of his patient energy. The departure of Dr. Osler from Johns Hopkins will be a heavy blow, and the faculty will have the greatest difficulty in the selection of his successor.

Dr. Osler was born at Bondhead, Ontario, July 12th, 1849. His father was a clergyman of the Church of England, Rev. F. L. Osler. The son has always been a member of that church. His earliest school life was passed in the school of his native village, and then he went to Port Hope, Canada, for a term or two in the Trinity College School at that place. Later he entered Trinity University of Toronto where he took his academic degree. As a student in those early days Dr. Osler was a hard worker during working hours, but when the time came for recreation none was more enthusiastic than he in those pursuits. Dr. Osler was in nowise a precocious child, but he won the regard of his teacher and fellow pupil alike by his honesty, industry and singleness of purpose, with which were combined well-maintained ability to grasp the subjects as taught. Vacillation has been foreign to his character always.

WORK DAY BY DAY.

In after life, when he taught others, he has consistently maintained by precept and by practice that to succeed one must do well what lies at hand without thought of what may confront one on the morrow. "Love to labor" has been one of his favorite maxims, for his own as well as for the guidance of his students. He is a firm believer of doing one thing at a time and doing it well, and by doing nothing in a manner that is not worth one's best efforts. Addressing a body of students recently, Dr. Osler said:

"As to your method of work I have a single bit of advice which I give with the earnest conviction of its paramount influence in any success which may have attended my efforts in life—'take no thought of the morrow.' Live neither in the past nor in the future, but let each day's work absorb your entire energy and satisfy your wildest ambition. The student who is worrying about his future, who is anxious about his examinations, doubting his fitness for the profession, is certain not to do as well as the man who cares for nothing but the matter in hand and who knows not whither he is going."

HIS CAREER AT MCGILL.

After leaving Trinity College, Dr. Osler decided upon the medical profession as his life work, and he entered the office of Dr. Bovell at Toronto as assistant and student. Here he remained three years and then entered McGill University in Montreal, where he graduated in 1872. He then went to London, Berlin and Vienna, taking special courses in physiology and pathology. Upon his return to Canada in 1875, Dr. Osler was elected to the chair of the Institute of Medicine at McGill University. Twenty-four years later, addressing the faculty of that college, Dr. Osler referred to his appointment in the following terms:

"A quarter of a century ago this faculty, with some hardihood, selected a young and untried man to deliver the lectures of the Institute of Medicine. With characteristic generosity, the men who had claims on the position by virtue of service in the school, recognizing that times were changing, stepped aside in favor of one who had had the advantages of post-graduate training in the subjects to be taught. This experiment on the part of the faculty, enthusiasm and constitutional energy on my part, led to a certain measure of success.

"My first appearance before the class filled me with tremulous uneasiness and an overwhelming sense of embarrassment. I shall not forget the nice consideration of my colleagues and the

friendly greeting of the boys, which calmed my fluttering heart. One permanent impression of the session abides—the awful task of the preparation of about one hundred lectures. After the ten or twelve with which I started had been exhausted, I was on the treadmill for the remainder of the session. False pride forbade the reading of the excellent lectures of my predecessor, Dr. Drake, which with his wonted goodness of heart he had offered. I reached January in an exhausted condition, but relief was at hand. One day the post brought a brand-new work on physiology by a well-known German professor, and it was remarkable with what rapidity my labors of the last half of the session were lightened. An extraordinary improvement in the lectures was noticed; the students benefited and I gained rapidly in the facility with which I could quote the translated German.

“Four years later I was appointed on the visiting staff of the Montreal General Hospital. What better fortune could a young man desire! I left the same day for London with my dear old friend, George Ross, and the happy days we spent together working at clinical medicine did much to wean me from my first love. From that date I paid more and more attention to pathology and practical medicine and added to my courses one in morbid anatomy, another in pathological histology, and a summer class in clinical medicine. I had become a plurist of the most abandoned sort, and by the end of ten years it was difficult to say what I did profess, and I felt like the man to whom Plato applies the words of the poet:

“‘Full many a thing he knew;
But knew them only badly.’”

“Weakened in this way, I could not resist when temptation came from pastures new in the fresh and narrower field of clinical medicine. After ten years of hard work I left Montreal, a rich man—not in this world’s goods—for such I have the misfortune, or the good fortune, to lightly esteem, but rich in the goods which neither rust nor moth have been able to corrupt—treasures of friendship and good-fellowship, and those treasures of widened experience and a fuller knowledge of men and manners which contact with the bright minds in the profession necessarily entails. My heart, or a good bit of it, at least, has stayed with these treasures.”

This charming bit of speech, besides containing interesting biographical material, indicates the modesty and cordial nature of the great physician.

Dr. Osler’s reputation as a teacher spread beyond the confines of the Canadian University, and the bright star of fame had already appeared above his horizon before he rounded out the

fifth year of his professorship at McGill. The first bright ray came in 1883, when he was elected fellow of the Royal College of Physicians of London, England, and this was followed in 1884 with his selection as Galstonian professor. Honors came to him fast, but he remained the same sensible, cool-headed and affable gentleman that he is to-day.

HIS VISITS TO EUROPE.

Almost every summer Dr. Osler takes a trip abroad and travels leisurely about the Continent. This habit began as far back as 1882, and on one of his numerous visits to London he met Dr. S. W. Gross, of Philadelphia. Dr. Gross was at that time famous as a consulting physician, and was at the head of the Jefferson Medical College at Philadelphia. A strong friendship sprang up between Dr. Gross and Dr. Osler, and in October, 1884, the former sent for Dr. Osler to go to Philadelphia. He complied and was then informed that on recommendation of Dr. Gross he had been appointed to the professorship of clinical medicine at the University of Pennsylvania. Dr. Osler promptly accepted.

A few years later, Dr. Gross died. In May, 1893, Dr. Osler married his old friend's widow. Mrs. Osler comes from the very best of the older families of Boston. She is a woman of more than usual beauty and as charitable as she is beautiful. To her efforts largely the women of Maryland were interested in the fight that has been inaugurated against the dread tuberculosis. Due to her efforts, many rich women were interested in the situation and gave liberally in support of her project to build and maintain, in the Blue Ridge Mountains, a number of model homes for consumptives, whose means did not permit the environment needed in their cases. Dr. and Mrs. Osler have one son.

GOES TO JOHNS HOPKINS.

Dr. Osler remained at the University of Pennsylvania until October, 1889, when he was invited to create the chair of Professor of the Practice and Principles of Medicine at Johns Hopkins Medical School, and promptly accepted. At that time the new methods of instruction in the matter of original research by the students of Johns Hopkins, which were an innovation in university teaching in America, were attracting world-wide attention. Dr. Osler's reputation had, at that time, placed him in the front rank of medical men, and seeing the great field that lay before the Baltimore University, and recognizing the opportunity presented to those who desired to explore new fields and carry scientific investigation as far as it was possible to carry it, he took

up his residence in Baltimore so as to be near the scene of his work.

His success at Johns Hopkins immediately attracted world-wide attention. He soon took a place in the very front rank of the greatest medical men of his time. In 1898 he was elected dean of the Medical Faculty of Johns Hopkins. Apart from his numerous duties at the school his practice rapidly assumed such vast proportions that he was compelled to adopt a system as strict and arbitrary as governs the management of a large corporation. His hours of consultation are crowded as full as possible and every day people who wish to see him are turned away disappointed. The only sure way to secure an audience with Dr. Osler is to make an appointment several days ahead. The demands from other cities upon Dr. Osler are many. Scarcely a case of unusual importance appears in America that effort is not made to secure at least the advice of Dr. Osler. After the shooting of President McKinley, Dr. Osler was called to Buffalo.

HIS LITERARY WORK.

This great amount of work to which have been added his literary labors, has proved a mighty strain upon his physical resources, and it is considered well from this point of view, at least, that he should go to the quiet walks of the venerable institution to which His Majesty has summoned him, and where his work will be less exacting.

"A fitting end to a great career" is the way several of his colleagues refer to Dr. Osler's new work. It means for him a longer and quieter life than he could hope to find in America where the conditions are so different.

Great things are expected of Dr. Osler in a literary way during the next decade. This will be the opportunity of a lifetime devoted to study, to put into enduring form the ripest and best experiences and the deepest knowledge which have come to him.

As a writer, Dr. Osler is forceful and polished. He prefers the simplest and most easily comprehended words, and his essays make beautiful and refreshing reading. His published works are as follows:

Cerebral Palsies of Children, 1889.

Principles and Practice of Medicine, 1892.

Teacher and Student. (Address), 1892.

Oliver Wendell Holmes. (Address), 1894.

Last June Dr. Osler delivered the lecture on the Ingersoll foundation at Harvard. His lecture was "Science and Immortality." This lecture will be published in book form shortly, and is eagerly awaited. To his students, however, Dr. Osler is generous with his time and never fails to be with them at their

smokers or entertainments when it is possible. He has a way of jotting down his ideas from day to day so that he is always ready, with the boys, to present to them something new. Another evidence of his generosity in this regard is that when invited to be present, and it is told him that the boys would like a short talk from him, he prepares his remarks with the same care as though he were to address the highest group of authorities in the world. In a word, Dr. Osler believes in and practices thoroughness in everything he does.

HIS METHOD OF TEACHING.

Dr. Osler's method of teaching is unique. He believes the greatest thing a doctor can know is to be able to tell what ails the patient, quickly, so that remedial effort may not be delayed. His lectures to the senior class which come under his personal care at Johns Hopkins are often filled with epigrams, but each emphasizes the point he desires to make clear.

Dr. Osler is not a genius in the sense of being an originator and discoverer, but he is a genius in being able to impart to others the results of the investigations of the medical fraternity. Once a week he takes his class through the hospital wards and asks it to diagnose the cases there met. He quizzes the boys and seeks to impress upon each the various indications and phases of each case and does it in a manner to create a lasting impression. The greatest privilege known to the students of Dr. Osler's classes comes with each Saturday evening when they go in a body to his beautiful home and there sit about a miniature banquet table while the host talks by the hour upon various subjects. He has a charming way of getting at each student's ambitions and from the vast fund of his experience offers many timely and valuable suggestions as to how to do with this or that phase. Dr. Osler's magnificent library is ever open to the demands of his class. It is no wonder that he is idolized by his boys, as he affectionately calls them.

The famous physician is as free from fads as the most democratic gentleman of this day. He loves to dress well and he does. He is extremely particular about the fit of his garments and has a love for fresh ties and immaculate waistcoats. There is no false dignity about Dr. Osler. He loves a joke as well as the next man and can tell a good story in splendid style. He detests practical jokes and practical jokers. His favorite story is of the Irishman, brought to the hospital after his peculiar case had been abandoned by several of the leading physicians of the leading infirmaries of the country. Dr. Osler approached the cot, and gazing at the peculiar growth on the man's chin, said:

"What is the matter with your chin, Mr. Hennessy?"

"Just as I expected," replied the patient. "I knew it was a waste of time and money to come here just to be asked what ails me. What in blazes are you here for?"

Dr. Osler is not one who believes in all work and no play. He frequently speaks to the student in this vein: "Do not become too deeply absorbed in your profession to exclude all outside interests. Success in life depends as much upon the man as the physician. The more you see of life outside the narrow circle of your work the better equipped will you be for the struggle. While medicine is to be your calling, see to it that you have also some intellectual pastime which will keep you in touch with the world of art or letters. Cultivate other pursuits, in moderation, outside of your profession. No matter what it is, have an outside hobby. When tired of anatomy, refresh your minds with Oliver Wendell Holmes, Keats, Shelley, or Shakespeare."

Upon the question of religion he has often said, "The only way to take the Bible is by simple faith. When you begin to reason it out you will surely become confused." Dr. Osler despises littleness and narrowness, and has often said that he devotes a half hour daily to communion with great minds of the present and past lest he fail to remember that broad mindedness should be a cardinal principle with every man. He loves the poets. Shelley and Shakespeare are his favorites.

Dr. Osler's hobby is the running down of first editions of old books. He will chase one of the species across the continent and never rest until he has gotten it. One of his chief delights is to rummage through the old book-stores of London. The result is a rare collection of the most famous books on earth.

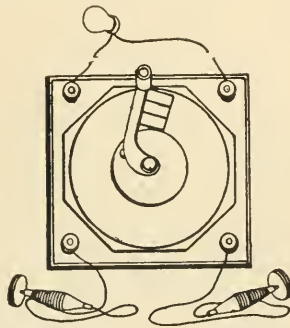
Dr. Osler has a profound regard and admiration for the old style country doctor. Speaking on this subject one day to his class he said: "Many of you have been influenced in your choice of a profession by the example and friendship for the old family doctor or of some country practitioner in whom you have recognized the highest type of manhood, and whose unique position in the community has filled you with laudable ambition. You will do well to make such a one your example, and I would urge you to start with no higher ambition than to join the noble band of general practitioners. They form the very sinews of the profession—generous-hearted men with well-balanced, cool heads, not scientific always, but learned in the wisdom of the sick-room, if not in the laboratories."

At the present time Dr. Osler is engaged upon the gigantic task of translating and editing Nothnagel's "Encyclopedia of Medicine." The series is to comprise twenty volumes. Six have been completed.—*Dominion Medical Monthly*, December, 1904.

THE ALTERNATING LIGHTING CURRENT IN THERAPEUTICS.

THE prevalence of the alternating electric lighting current in the many smaller cities and towns of the country, has come to offer many complex problems to the physician contemplating the installation of electrical apparatus. When the marvellous extent of the field of electro-therapy is considered it must be admitted that confusion is easy. Taking this point, together with the great variety of currents offered by different plants, and the complication of the matter is realized.

Let us dwell briefly on the physics of this current. The alternating current most in vogue at present is the sixty cycle variety; the number of alternations per minute with this form is 7,200; that is to say, the poles of the current are reversed 7,200 times



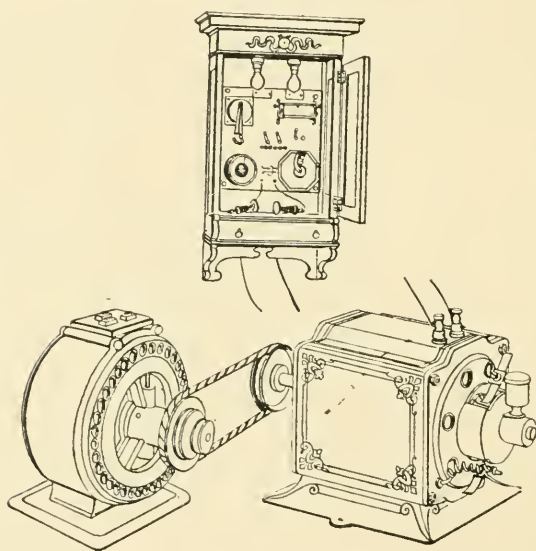
Graphite Rheostat with Lamp in Series

per minute, thus neutralizing the chemical polar properties of the current as effectually as an acid solution is rendered void by the introduction of an alkali. The 125 or 133 cycle mode of current has a still greater number of alternations per minute, viz., 16,000, which removes still more remotely the possibility of any polar effect.

The one actual therapeutic property possessed by the alternating current lies in its sinusoidal effects. It is true that it is not a current of truly sine waves, but modern dynamo construction has improved it in this respect, and it is a fact that this current now compares very favorably as a therapeutic modality with the output of the standard sinusoidal machines. A convenient method of applying this current is with a graphite rheostat as a means of control; connected by means of a series attaching plug with a sixteen candle power lamp. Its chief value consists in the pleasant sensuory effect upon the motor mechanism. It is a far more valu-

able current for this deep muscular massage than the slowly interrupted faradic current: especially as regards the absence of disagreeable sensation, although the oscillations are quite rapid for muscular treatment.

Another method of utilizing the alternating current in electro-therapy, although in a rather indirect manner, is by transforming it to a direct current which may be employed in producing galvanic effects: a motor dynamo outfit, so styled, is used for this purpose. The process of transforming the current really amounts to developing power by passing the alternating current through a small alternating current motor; the shaft of this motor is either geared or connected directly with the shaft of a



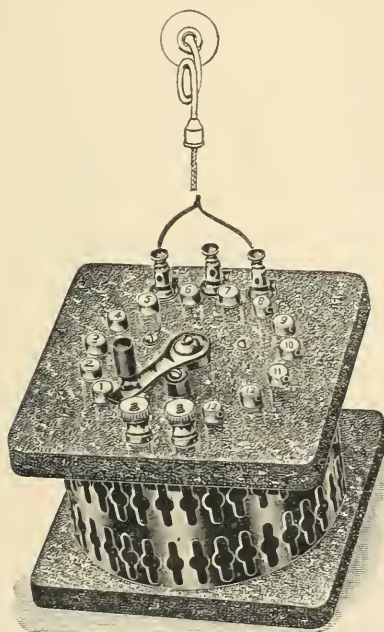
Transforming the Alternating Current to Provide a Direct Current for Galvanism

small direct current dynamo: the power thus produced operates the dynamo which generates a direct current of suitable voltage and amperage to be used in connection with a galvanic wall-plate; this current may also be employed to excite to action the faradic coil of a physician's switch-board. Strictly speaking, the alternating current employed in this method is used as a mechanical agent rather than as therapeutic force.

Another mode of employing this current, although a surgical rather than a therapeutic method, is in galvano-cautery. This is quite an important branch of electricity with the physician making a specialty of eye, ear, nose and throat work. The great advantage of cautery in many minor cutting operations is in the almost certain avoidance of hemorrhage. A transformer working on the

principle of an induction coil is used to adapt the current to cautery work. The 110 volt or 55 volt alternating current is attached to the proper binding posts of the transformer; a current of about two amperes is thus fed to the appliance. The transformer converts this current of 110 volts and two amperes to a current of about six volts and thirty or forty amperes, which is sufficient to heat most platinum cautery knives and loops. The cautery transformer is a very simple device, and makes a most valuable addition to the equipment of a physician who has the alternating current available.

Another use to which the alternating current may be subjected



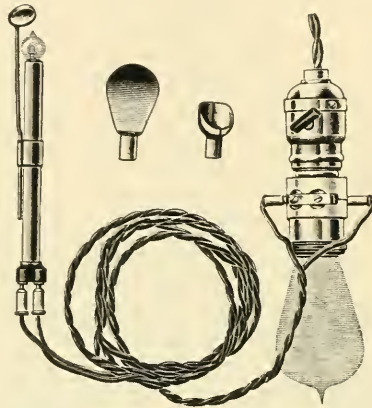
The Cautery Transformer

is to light diagnostic lamps. Perhaps this matter may seem a very simple one to dwell on at first thought, but upon further consideration the complexity of the subject will be appreciated. There is frequent call for a wall plate or other piece of apparatus which will combine a current for diagnostic lamps among other features; this is an easy matter to arrange regardless of whether the plate is to be used with either direct or alternating current; but especial stress should be laid upon the fact that a separate contrivance such as a large heavy current graphite rheostat will prove more suitable to the purpose. Another manner of using the alternating current to light small lamps is by using series lamps

in connection to regulate the flow of current. A number of diagnostic lamp sets are on the market which embody this principle, among which will be found a very unique one in that the small lamp is absolutely guarded against an excess of current, which may be accidentally encountered when used with a wall plate or other controller.

A number of other uses of the alternating current, both therapeutic and medicinal, might be dwelt upon, such as photo-therapy, X-ray therapy, high frequency effects, etc., but space will not permit of this.

As a brief review, in conclusion, we may say that the alternating current is valuable therapeutically and surgically as follows:



Diagnostic Lamp Controlled by Series Lamp.

As a sinusoidal current.

As a source of power to generate a direct dynamo current for galvanic and faradic purposes.

As a means of supplying a current for cautery work through the medium of a cautery transformer.

As a current to light diagnostic lamps by means of a wall plate or rheostat as a controlling device, or with a lamp in series.

The McIntosh Battery and Optical Co., of Chicago, having worked at these problems for upwards of twenty-five years, have been enabled to produce apparatus adapted to all of these branches of electro-therapy. Their appliances embody those features considered by physicians as essential, correctness of design, elegance of apparatus and durability of construction.

THREE INFANTS TREATED WITH THE R.-H. LYMPH-COMPOUND.

BY F. B. GOTTSCHALK, M.D., CHICAGO, ILL.,

Professor Diseases of Children, Jenner Medical College.

CASE 1.—A child, Leslie G., two years old, developed severe bowel trouble with gastro-enteric infection, with a temperature of 103-104. This temperature remained almost stationary in spite of ice caps, ice baths, intestinal antiseptics and other usual treatment. The depression following this constant temperature was very great, and at the end of a week was followed by cerebral symptoms, piercing cries, extreme restlessness, etc. Opiates had to be employed constantly. After the first week the child slept with its eyes open, even when under the effect of the opiate. Examination showed entire loss of reflex to light.

The child was seen by two specialists in consultation who made an unfavorable prognosis, stating that they had never seen a child with such severe involvement recover the use of its vision even if it should survive the disease itself.

As a last resort it occurred to me that a few injections of the R.-H. Lymph-Compound could not aggravate the case, but on the contrary might prove a benefit. Consequently three drops were injected hypodermatically at 4 p.m. One hour later the child went to sleep with closed eyes. The temperature went down to 101 deg. F. No more opiates were used. The injection was repeated at 10 p.m. The child slept until morning, temperature 100 F., gradually going down to normal in the next two days.

On seeing the child next morning I found his eyes following the light. By noontime his eyes were following about the shadows of his mother and nurse. By evening of this day he was able to distinguish the difference between his nurse and mother, and on the following day recognized the other members of the family. On the fourth day the improvement was so great that I suggested the child be taken into the garden in the hammock or its buggy. Immediately on being taken out he called for his little playmate.

Injections were kept up to the end of the week, when the physician's attentions were no longer needed. Recovery complete. At present writing child is very robust and healthy.

CASE 2.—Boly K., twenty months old. Well nourished physically, but very backward mentally. The child was so indifferent to its surroundings that the parents questioned its capacity for sight, but examination showed this to be a mistake. When seen by me I suggested that the parents have electricity put into their house and secure an electric solenoid to put the child to sleep

in, for its tonic and reconstructive effect. One previous similar case had shown improvement after a six months' treatment of this nature. The parents readily consented to this. To this treatment were added injections of the R.-H. Lymph-Compound, three to four drops daily.

After using one-half ounce of the lymph the child began to show a marked mental improvement and to manifest interest in its surroundings. The child has thus far used one ounce. It not only crawls about the room but stands up by the chairs and shows all the signs of intelligence manifested by a child eight or nine months old.

CASE 3.—A frail, delicate child, two years old, was seized with severe gastro-enteric infection, temperature 102 to 104 deg. F., great prostration. In spite of routine treatment for this trouble the child rapidly failed, and at the end of seven days a fatal termination seemed probable.

Remembering the results in Case No. 1, I again resorted to the R.-H. Lymph-Compound, three drops, twice daily. Improvement was not perceptible until the second day, when the child became much brighter, though the temperature remained 102 and 103 deg. On the third day the child, which had been indifferent to the previous hypodermic injections, made a decided objection. It took nourishment eagerly, and temperature was down to 100 deg.

After six days, owing to marked improvement, the injections of lymph, which seemed cruel to the parents, were discontinued and strychnine was administered by mouth. On the second day after discontinuance of lymph the temperature went up again, followed by marked prostration. The injections of lymph were again resumed with an almost immediate fall of temperature. Improvement and cure took place in the next two weeks.

There is no doubt in my mind that the effect of the Lymph-Compound has a more active influence on the infant and growing child than it has on the adult: the beneficial results as seen in the adult being greatly intensified in young patients.—*Journal of American Animal Therapy Association.*

PRURITUS.

"As direct local nerve sedatives, weak tar solutions, amongst which 'Liquor Carbonis Detergens,' one in fifty of water, holds a prominent place."

"*Diseases of the Skin,*" page 190.

W. ALLAN JAMIESON, M.D., F.R.C.P. (Edin.).

"GLENWOOD," A PRIVATE INSTITUTION FOR THE TREATMENT OF EPILEPTICS ON THE COTTAGE SYSTEM, AT DANSVILLE, N.Y.

It may interest the Canadian medical profession to know some facts as to a recently opened institution at Dansville, N.Y., for the treatment of epilepsy, especially in its incipient stages.

The founders of Glenwood gave as much attention to the important matter of location as to any detail incident to their undertaking. After considering every possible combination of especially desirable natural advantages, the interest and convenience of patrons seemed to be most subserved by a sojourn in nature's garden spot, the Valley of the Genesee. In making this decision the choice of two world-famed institutions was but corroborated—for Craig Colony (New York's model institution for the treatment and care of its epileptic paupers) is but a few miles away, and the Jackson Health Resort (with a half century's record of caring for the sick and exhausted), the grounds of which adjoin those of Glenwood. An elevated, equable and genial climate, pure mountain springs, dry, porous soil, together with the magnificent panorama of forest and field within the colossal amphitheatre of hills which stretch far away to the distant horizon—all these and more combine to form an unsurpassed setting for Glenwood.

A quarter-mile from Glenwood, and in the valley below, is the thriving and picturesque village of Dansville, with its churches, schools and railroad facilities.

Behind and above the institution rise the "everlasting hills" with their burden of forest, shrubbery and foliage. What could make a more magnificent setting for all the striking advantages which Mother Nature has collected and placed together in this beneficent dale?

Coming to the immediate surroundings of Glenwood the investigator finds the well-appointed administration building, and the many beautiful cottages, surrounded by several acres of beautiful lawn adorned with flowers, shrubbery and trees in abundance. Golf, tennis, croquet and other games and sports are amply provided for.

The gravel subsoil prevents malarial dampness which is the disadvantage of so many places, and causes the ground to dry rapidly after rains, and renders the air, both day and night, singularly free from chill and dampness, thus making a large amount of out-door life entirely practicable and advantageous for the patients at Glenwood.

At Glenwood where each individual patient is constantly under the personal care of an expert in epilepsy, the percentage of

cures or degree of improvement, must be fully twice as large as is possible at the large public institutions.

The importance of maintaining a healthful Christian atmosphere is fully appreciated, and every patient at Glenwood can obtain such quantum of religious opportunity as he, or his parents or guardians may desire.

Expenses range from ten to thirty dollars per week, according to room and any special arrangements as to meals. All patients receive the same care and attention from those in charge, irrespective of the price they pay. Patients pay for two months in advance upon entering the institution and thereafter monthly in advance.

All applications and business correspondence should be addressed to the Health Resort Company, 62 State Street, Rochester, New York.

Correspondence concerning patients should be addressed to the Medical Superintendent of Glenwood, Dansville, New York, and mail intended for patients should be addressed in his care.

AN ADVANCE TOWARD BETTER HOUSEHOLD SANITATION.

THERE has been recently introduced into Toronto a new system of house-cleaning by compressed air which must, of necessity almost, interest physicians. It is an advance in the right direction, and, we venture to think, will be found to be in accordance with the theories of preventive medicine. By it the entire internal house fixings are thoroughly and quickly cleaned of everything in the way of dust or dirt, by compressed air, which collects and removes everything of that kind without it being allowed to mix with the air of the room or permeate the entire house. The walls are cleansed and the carpets thoroughly renovated by collecting the dirt, not only in their fabric, but between the carpet and the floor, without removing them or disturbing the furniture. Draperies, tapestries, decorations, and ceilings are also cleansed without in any way dismantling the rooms and without creating dust, the bane of the good housekeeper.

A point about this system that will interest our readers is that, by this method, a room or house can be disinfected after a case of contagious disease. The current of compressed air is charged with disinfectants, which penetrate every nook and corner, leaving little opportunity for the spread of disease and yet proving harmless to any fabric with which the air comes into contact.

By the compressed air method, one man can easily cleanse

six or eight rooms in half a day, including not only the walls and ceilings, but the entire contents even to the bedding.

Compared with the old system of house-cleaning, the new system is certainly an immense improvement, and, for no other reason, perhaps, than that it is healthy, it will take but a very short time for the compressed air method to be adopted generally, judging from the number of times in passing along our best residential streets last spring, and in the early autumn, we saw the "hose and reel" quietly at work, rendering the house ornamental, a great service in causing it to become also the house healthful.

Not in private dwellings alone, but more especially in hospitals and public institutions, do we deem this new system necessary. It discovers dirt that would, perhaps, remain unseen, and removes it by a sort of Roentgen ray penetration, restoring the appearance and color of fabrics and making them look bright and fresh. We venture to think that such an equipment is a necessary adjunct, and should be installed in every hospital, thus removing all chance of accumulated dirt which might add to the cases of sickness present in the institution.

HARCOURT CHLOROFORM INHALER.

THE Harcourt Chloroform Inhaler, of which mention has already been made in these pages, has been awarded silver and bronze medals at the St. Louis Exposition, and a silver medal was also awarded to the inventor, Mr. A. Vernon Harcourt, M.A., F.R.S. The apparatus has had an extensive trial in some of the London hospitals and in private practice, and we understand that the French surgeons, who saw it in use during their visit to London a short time ago, were greatly impressed, and are now making a trial of it in Paris and other French clinics. Of late years the chloroform question has been very much to the front in England, and we are informed that an extraordinary amount of interest has been displayed over Mr. Harcourt's invention by those surgeons and anesthetists who have had any experience with it.

Some criticism was offered by certain speakers at the meeting of the British Medical Association at Oxford to the effect that the reading of the scale was inaccurate if the bottle is shaken about. This, of course, is perfectly true; everyone knows that continued violent disturbance of a volatile liquid will increase the rate of evaporation. But then, what a man does in his laboratory to confirm his im-

pressions of physical laws is not necessarily the same course pursued by the anesthetist when he has a patient on the table under the surgeon's knife! In connection with this criticism it has been pointed out that if the bottle is attached to the apparatus by two and a half inches of thin-walled rubber tubing (about one mm. thick) the rubber tube acts as a damper, preventing any oscillation of the bottle which might be caused by slight movements.

For hospital use it is contended that it is found much more convenient to attach the apparatus to a stand and connect it to the mask with a flexible rubber tubing about two feet long and with a smooth bore one-half inch in diameter. This leaves the operator quite free with only one hand engaged.

It should be noticed that the readings of the scale are no indication of the vapor strength if air is admitted round the mask. The inability on the part of some anesthetists to obtain the same results as others is generally to be put down to non-fitting of the face-mask.

The simple device of the increase tube, whereby a dose up to 3 per cent can be given, is most ingenious and increases the usefulness of the apparatus.

A number of instruments have already found their way to this country, and we invite any of our readers who have had a sufficiently long experience of the manipulation of this inhaler, to communicate their results through the medium of our columns to the larger section of our clientèle who have not yet had the good fortune to handle it.

MASTICATION, THE QUADRUPLE IMPORTANCE OF, FOR GASTRIC DIGESTION.

M. DASTRE, Professor at the Sarbonne, Paris, communicates a succinct statement, which may be regarded as the latest word of science respecting the relation of mastication to gastric digestion. We translate as follows:—

1. *Mechanical*.—A division of the foodstuffs into small fragments. The gastric juice penetrates cubes of cooked albumin at the rate of about one millimeter per hour (Herzen, *Comptes. Rendus de la Societe de Biologie*, 1886). It is clear that small particles, for example, cubes presenting on each side a surface of one square millimeter, will be penetrated in about one hour, while cubes with sides of one square centimeter will be penetrated only at the end of several hours.

2. *Physical*.—The extraction of food substances soluble in

water. During mastication the saliva dissolves those alimentary substances which are soluble in water, or in a neutral or alkaline aqueous liquid; but most of these substances act as pepsinogens (Schiff) or succagogues (Pawlow). The more prolonged the mastication, the greater will be the quantity of saliva secreted, and because of the extraction from the foodstuffs of pepsinogens and succagogues to the great benefit of gastric digestion, an increased quantity of gastric juice, containing a greater quantity of pepsin, is produced.

3. *Chemical*.—The saliva transforms alimentary starches into dextrin and sugar. Dextrin is one of the most powerful of pepsinogens; if one chews insufficiently, but little dextrin is produced, for the ptyalin ceases to act in an acid medium such as the gastric juice. It is true that the pancreatic juice takes up anew the digestion of the starches, but the dextrin absorbed by the small intestine is without pepsinogenic properties. It is necessary that it should be absorbed by the stomach. It is essential, then, that mastication should be prolonged to produce dextrin in large amount.

4. *Secretory*.—Pawlow has proved that the mucous membrane of the stomach is innervated, from the secretory point of view, by the pneumogastric and the sympathetic. The first is the centrifugal path of the cerebrogastric reflex. The point of departure for this reflex may be either subjective (psychic reflex) or sensory (sensory reflex). It may be produced by visual and auditive sensations, but it is especially excited by olfactory and gustatory sensations under the influence of which the gastric juice flows abundantly. Now, the mastication of a sapid substance intensifies gustatory sensations, and consequently re-enforces the sensorial gastric secretory reflex.

These different phenomena are intimately related, the one to the other. The more one chews, the more freely the saliva flows; the more saliva, the larger the amount of pepsinogens and of succagogue substances brought into solution, and at the same time the gustatory sensations, which are the point of departure of the gastric secretory reflex are prolonged and re-enforced.—*Modern Medicine*.

Appointment of Associate Coroners.—The *Ontario Gazette* announces the following appointments: Charles Richard Charteris, M.D., of Chatham, to be an associate coroner for the County of Kent; John H. Wright, M.D., of Wallaceburg, to be an associate coroner for the County of Kent; Donald McEachren, M.D., of Linwood, to be an associate coroner for the County of Waterloo.

HEIGHT AND WEIGHT.

THE statistics as to the height and weight of school children, which have now been kept for twenty years in some of the most progressive schools, are of considerable value, especially as affording a basis for comparison and for establishing an average standard of healthy increase in height and weight. In Marlborough such statistics have been kept since 1874, and the statistics show that a boy of 13 weighs on an average $5\frac{1}{2}$ lbs. more and is 2 inches taller now than the average boy of 13 in 1874. Not so much difference is shown between the average at the age of 18 then and now. To-day an 18-year-old boy is $4\frac{1}{2}$ lbs. heavier and 9-10 of an inch taller.

The Rugby statistics, which have been kept since 1879, show that the 13-year-old boy is now 6 lbs. heavier and $2\frac{1}{2}$ inches taller than in 1879. But the 17-year-old boy shows in the same period an increase of 9-10 of an inch in height, and a diminution of one pound in weight.

In Canada such measurements and statistics are kept at some of the best private schools, both for girls and boys, and it is to be hoped that in the public schools similar records will be made before long. They would be of considerable value.

Another record, aside from school work, is quite as important, but it would be more difficult to get, viz., a record of the average weight and height of younger children and infants. Charles Gilmore Kerley, of New York City, stated in his chairman's address in June, 1904, before the Section on Diseases of Children of the American Medical Association, that only 20 per cent. of the children over one year of age, coming under his observation in New York City, are of normal development. Eighty per cent. abnormal is a large proportion, and in medical practice it is always necessary to distinguish between the average child brought to the physician and the fortunately far larger number whom the physician seldom or never sees after they are out of long clothes. Dr. Osler is in the habit of telling the undergraduate and post-graduate student at the Johns Hopkins to go to football matches, tennis tournaments and golf, so as to have the physician's idea of an average human being brought nearer the normal. A wise piece of advice. Life insurance examinations are another useful means to the same end.

H. M'M.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

Editor,

43 BLOOR STREET EAST, TORONTO.

W. A. YOUNG, M.D., L.R.C.P. Lond.,

MANAGING EDITOR,

145 COLLEGE STREET, TORONTO.

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Laryngology and Rhinology—J. D. THORBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

Pharmacology and Therapeutics—A. J. HARRINGTON M.D., M.R.C.S. Eng., Toronto.

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month. London, Eng. Representatives, W. Hamilton Miln, 8 Boulevard Street, E. C. Agents for Germany Saarbach's News Exchange, Mainz, Germany.

VOL. XVII.

TORONTO, FEBRUARY, 1905.

NO. 2.

Editorials.

THE PHYSICIAN AND MENTAL THERAPY.

IN the November, 1904, issue of the *Medical Herald*, St. Joseph, Mo., Dr. Bell, the editor, writes entertainingly of the attitude of the educated physician towards mental therapy. He says, in brief, that there is abroad in the world a desire to know more of the mind, the soul, the ego, to learn its attributes, its relations to health and disease, its power and influence over the body, which is its

dwelling place; but that the educated physician turns a deaf ear to the cry of the multitude for light, declares that those who have experienced some of the evidences of psychic power are either weaklings, or misled, or impostors, and accounts for all vital phenomena by atoms, molecules and evolution.

Small wonder, he continues, that teachers of the opposite extreme are quickly sought, who, with like methods, declare the non-existence of material things. These latter teachers, brokers at a celestial exchange, sell for cash the healing influence of "The Divine Mind, in which it is impossible for pain, disease, disorder to dwell, to those enthralled possessors of mortal mind, who are as ill as they think they are, and capable of entertaining aches, pains, disease, destructive tissue changes and death."

Dr. Bell censures the educated physician, because he fails to recognize the fact that psycho-therapy, through suggestion, does accomplish results unattainable by drugs alone, or because he has not sought to utilize this rediscovered truth, wisely combining it with known and tried remedies derived from the physical world. He concludes his article by putting the question of science and pseudo-science in this fashion: "Man's dual nature demands and surely shall receive, late though it be, the fullest consideration. He who denies the power of the human mind to heal the body is not wise. He who denies the virtue of medicine, and claims the non-existence of pain and disease, is a stranger to the truth. There is but one way to prevent the continued progress of pseudo-science, and that way is the plain one of acknowledging truth wherever found, and wisely assigning it to its proper place."

This argument is a plea for humbug in selected cases. Men can be cured of certain diseases by humbugging them; therefore they should be humbugged. The physician should first diagnose the disease. If it is amenable to mental therapeutics, it should be so treated; if physical agents are required for its relief, they should be used.

There is nothing new in faith-healing. The essentials for its exercise are strong faith in a divine power to heal, and the existence of disease or pseudo-disease. Eight hundred years before the beginning of the Christian era, at the temple of Asklepios, in Epidauros, Greece, the performance of religious rites and lustrations prepared the suppliant for the operation of the divine

power. At night when the patients were gathered together in the long ward of the Abaton, priests recited prayers, and then put out the lights, with an injunction to go to sleep and hope for dreams in which the god should appear and tell them how they might find relief. Whether hypnotism played a part in the ritual of cure can only be conjectured; it is clear, however, that nothing was left undone to create an atmosphere of suggestibility. Many inscriptions recording cures have been discovered, and several of these speak of dreams, in which wholesome counsel was given by the god. In the case of the less imaginative patients it is not unlikely that the influence of the mystic surroundings was helped by the use of opium, or other drowsy syrups, causing vivid dreams. Men and women, worn out by suffering, and possessed by an eager faith in the healing power of Asklepios, would, when under the influence of such a thing, need no elaborate *mise en scène* to make them see visions. As an evidence that actual cures were wrought through faith in Asklepios, large numbers of *ex voto* offerings, many of them made of gold, have been excavated from the ruins of his temples.

In Christian times and lands, especially since theology and medicine parted company, the tendency of the latter is to seek and find its *raison d'être* in the treatment of human diseases by physical agencies of various kinds. Science is necessarily opposed to humbug, and the votaries of medical science will not willingly employ the arts of the charlatan, even to cure disease. But there are others.

As long as the physical therapist rides the horse he learned to ride at college, the merits and demerits of which he has familiarized himself with on many a hard-fought field, he preserves his equilibrium, knows his destination, and often reaches it. Should he try to ride Mental Therapeutics, just because it is the fashion to do so, his efforts will probably end in disaster, and he will probably have to exclaim with the aged farmer, who collided with a tree, while learning to ride a bicycle, "You can't teach an old dog new tricks."

Some persons may think an educated physician censurable because he neglects to use suggestion or mental influence when treating an hysterical patient; but death from either an hysterical fit or the hysteric state is the rarest of events, if it ever occurs. Besides, asafetida often cures the hysteric attack.

Christian Scientists, who make faith-healing a religious

dogma, use the same method in treating diverse diseases and diseased conditions, viz., hysteria, neurasthenia, pneumonia, typhoid fever, scarlet fever, diphtheria and broken bones. Recently a young man residing in Toronto fell ill with typhoid fever, and was deprived of medical aid by his relatives, who dismissed the attending physician and employed a "divine healer." The patient's mother-in-law threatened to prosecute the mother of the patient, and the "divine healer;" but they replied that they did not care for the law. Just before the patient died, several Christian Scientists were sitting in the room reading Bibles, the sick man having one in his hand. By entering the room they said that his mother-in-law was helping the devil to take the young man away. The wife was not allowed to see her dying husband, because "the train of thought would be interrupted."

Clearly in this case the "divine healer" required treatment; his dying dupe just to be left in peace. You cannot drive fanaticism out of a Christian Scientist by pointing to the achievements of medical science; but you should fine him for practising medicine until he is possession of a legal qualification to do so. On the other hand, it would be too much to expect the educated physician to turn himself into a faith-healer merely because some of his patients wish it so.

Then, again, we may pick a pearl from a heap of dust. Practitioners of faith-cure, when qualified, should be obliged to report their cases of typhoid fever, scarlet fever and diphtheria to the medical health officer. Statisticians would then be in a position to estimate the value, if any, of mental therapy in such diseases; or, at least, to learn the real mortality rates when these diseases are uninfluenced by the recognized medicinal agents.

J. J. C.

GOOD SHOWING FOR CONTAGIOUS DISEASES IN TORONTO, BUT TYPHOID FEVER IS NOT REPORTED BY THE HOSPITALS.

At page 121 we publish a letter from the M. H. O. of Toronto showing the cases of, and deaths from, diphtheria, scarlet fever and typhoid fever, respectively, during each month of 1904, up to December 27th of last year. On making the necessary addition and division we find that these figures show: Diphtheria,

1,268 cases, 114 deaths, a mortality of 8.99 per cent.; scarlet fever, 312 cases, 12 deaths, a mortality of 3.84 per cent.; typhoid fever, 131 cases, 40 deaths, a mortality of 30.53 per cent.

As the mortality from diphtheria varies in different epidemics from 10 to 50 per cent., that which is recorded for Toronto for 1904, 8.99 per cent., would indicate a rather mild type of this disease, or else that the cases had been efficiently treated. Owing to the fact that anti-diphtheritic serum is extensively used in Toronto, 1,203,500 units having been used in the City Isolation Hospital during 1904, the low mortality rate from diphtheria, in this city, is probably due, in a large measure, to the last mentioned agent.

In scarlet fever the prognosis is always guarded. The mortality varies in different epidemics from 5 to 40 per cent. As neither Moser's anti-scarlatinal serum, nor Aronson's anti-scarlatinal serum was used in the treatment of scarlet fever at the Toronto Isolation Hospital during 1904, nor in private practice during this time, so far as we know, the low mortality rate of scarlet fever in Toronto is probably due to the mildness of the type of the disease, although good medicinal treatment and thorough nursing would powerfully assist in producing this result. Isolation and disinfection would, of course, limit the spread of the disease.

The mortality from typhoid fever varies in different epidemics. In private practice the average is probably between 5 and 10 per cent., and in hospital practice it is somewhat more. The high mortality recorded in Toronto—30.53 per cent.—would indicate the prevalence of a very deadly form of typhoid fever during the year 1904, or else the fact that only a small percentage of cases of typhoid fever occurring in this city had been reported. The former hypothesis is a most unlikely one, for the water supply of Toronto is unusually good. The latter is, therefore, the more probable one, viz., that while the M. H. O. of Toronto is kept fully informed as to all the deaths from typhoid fever, he learned of only a percentage of the cases of that disease, which occurred in this city during the past year.

Assuming that a mortality of 10 per cent. would fairly represent the actual death rate due to typhoid fever in Toronto during 1904, the recorded mortality for that year—40—would

indicate that there must have been some 400 cases of typhoid fever in this city last year, instead of 131 cases, the number reported. Let us suppose some illustrative cases: A resident of Toronto having caught typhoid fever outside of this city, enters a Toronto hospital, notification not having been given either to the M. H. O. of the municipality where the disease was contracted, nor to the M. H. O. of Toronto. A resident of an outside municipality may be treated in a Toronto hospital for typhoid fever, notification not having been made either to his own M. H. O. or to the Toronto authority. Patients belonging to these classes die in the Toronto hospitals, their deaths helping to unduly swell the legitimate typhoid mortality rate of this city, because while their deaths are ascribed to typhoid fever, notification of their cases, as cases of typhoid fever, has not been given to the M. H. O. of Toronto. Such a statistic as to typhoid mortality is misleading, and should be fully explained, if published. There is no use in being finical in such a matter. On the other hand, why bear a burden which causes reproach and may do harm, when, by distributing the burden, you may save yourself and assist other municipalities to get rid of their unhygienic shortcomings?

J. J. C.

ARE CHRISTIAN SCIENTISTS MAKING PROSELYTES OF PHYSICIANS?

THE query is almost an insult to the profession at large, but strange, vague rumors are abroad in our fair city, and we must cry "A halt—to Harry Holly!" ere we fire the fatal shot that is the doom of all deserters from the ranks. The credit, not of a nation in this case, perhaps, but of a noble profession depends on loyalty, fidelity and honor. Again those benighted persons calling themselves Christian Scientists have sacrificed a young life to their ignorant fanaticism. We refer to the Goodfellow case of recent date in this city, where at the first signs of illness the young wife, who was not a Christian Scientist, reported her husband's condition to the physician of the G.T.R. After two days the Goodfellow family (Christian Scientists) dismissed him, though he faithfully told them how ill the young man was with typhoid fever, and warned them that death might ensue if they withdrew medical attendance, medicine, etc. They turned a deaf ear and

persisted in the "think" cure, until a comparatively few hours before death, when, in haste, they sent for the physician who was called in at the "passing on" in both the Lewis case and in the Frazee case, and he, unfortunately, through soft-heartedness, hurry, or for want of proper investigation, or for some reason he is unable to transfer from the realm of thought into plain blank verse, issued a death certificate, signing it "pneumonia."

The form of death certificate at present in use is greatly at fault in construction, in so far that there is an opportunity that might present itself to anyone so desiring, perhaps with criminal intent, to fill in the cause of death. We think it is high time that the Act be altered, and the wording of the form of death certificate entirely changed, making it impossible for anyone to tamper with it, and necessitating the return of death being filled in *in toto* by the medical attendant, or, as occasion arises, by the coroner in charge of the case. It is true that care is taken by the Medical Health Officer that no burial permit be issued until a satisfactory certificate is filed, but if the change to which we refer were made, it would often save time and trouble.

Pity 'tis these misguided people seem to look upon this particular medical man who signed the Goodfellow death certificate in the light of a sympathetic brother "almost persuaded." If someone had not reported this case to the coroner-in-chief for investigation, would not the physician have been (though maybe unintentionally) aiding in covering up a crime? For it is a dastardly crime to let a young promising life burn out with fever and provide neither proper medical attendance, medicine, nor nursing. The Frazee and Lewis cases ought to have been warning enough, but a third, and let it be a last warning, has now been sounded. Let all physicians stand firm against the wiles of these insinuating people, and let the tenderfeet in our profession understand that, if they lower their colors, they must face the music of the dirge suited to the words, "Good-bye forever." If there be a repetition of the laxity in the granting of a death certificate, such as has been reported in the Goodfellow case, the circumstances are indeed a fit subject for investigation by the Discipline Committee of the Ontario College of Physicians and Surgeons.

Let the punishment fit the crime. A clergyman who asked for reduced rates at a hotel, on the ground that he was a minister of the Gospel, and was refused, demanded the reason

when paying his bill. The clerk replied: "You did not bow your head and ask grace before meat, therefore as you ate like a sinner, now please pay like a sinner."

W. A. Y.

EDITORIAL NOTES.

The Adulteration of Coffee in Canada.—Bulletin No. 100, Ground Coffee, shows that of 75 samples of coffee examined at the laboratory of the Internal Revenue Department, Ottawa, 45 were genuine, 19 adulterated, 8 doubtful, and in 3 the adulteration, chicory, was declared. The principal adulterants found were chicory and roasted cereals. Of chicory, which has been used for over one hundred years as a substitute for and an admixture with coffee, Pavy writes in *Food and Dietetics*: "It gives increased color and flavor to coffee, and, used as an admixture to a moderate extent, is considered by most persons to furnish an improvement on coffee alone. The preference shown is quite independent of any consideration of economy. It is employed upon its own merits and, when there is no concealment, its addition to coffee cannot be looked upon in the light of an adulteration." In chicory, there is no caffeine. Roasted chicory contains, like coffee, an empyreumatic volatile oil, which forms the source of its aroma and a bitter principle. According to the analysis of John, 25 per cent. consists of watery, bitter, extractive matter. The addition of roasted cereals to coffee causes the latter, when tested, to yield the iodine reaction for starch (blue color). Coffee adulterated with roasted grain is sold more cheaply than pure coffee. Whatever may be the dietetic value of roasted cereals, when taken in the form of a hot infusion, very little therapeutic benefit can be derived from the employment of coffee extensively adulterated with cereals. Pure coffee is advantageously administered as an antidote in cases of opium poisoning. It is also of service in subduing the effects produced by the immoderate use of alcoholic stimulants. It frequently affords relief in some forms of nervous headache, and is well known to constitute one of the most valuable agents we possess for controlling the paroxysms of spasmodic asthma.

Does Centrifugalization Diminish the Number of Bacteria in Milk?—In an article entitled "The Mechanical Methods of Purifying Milk," by Paul Diffloth, published in *La Presse Medicale*, November 30th, 1904, the following appears: "The centrifugalization of milk appears to give a result contrary to the diminution of the number of bacteria in it. Fjord and Fleischmann also show the feeble value of separation by the centrifuge and Conn proves that, if centrifugalized milk contains fewer impurities, it also contains more bacteria after centrifugalization than before. This particular fact may be easily understood. Agglomerations of bacilli, colonies of microbes, are dissociated, divided, their elements dispersed, without in any way losing their vitality, the action of the separator not having any effect on their evolution." The author quotes Niederstadt, Dunbar and Kister in support of the view. Eckles and Barnes contend that the bacteria are diminished by centrifugalization; but that the preservation of the milk is not facilitated by that process. Russell adds that "this mode of clarifying milk is not worth the trouble it gives, unless in dealing with exceptionally dirty milk." As the result of 240 analyses, Professor Harrison expresses the following conclusion: "The action of passing milk through a separator to purify it of contained bacteria is useless; the number of bacteria liquefying gelatine increases slightly after it has passed through the separator; the common bacteria found in manure and hay appear to be disseminated through the milk by the mechanical action of this treatment." M. Diffloth also notes that swine breeders recognize the absolute necessity of pasteurizing the whey got from cream separators, the preservation of which is much more difficult than that of whey obtained through natural processes, while the danger of using it as food is much more considerable. He rejects centrifugalization as an efficacious method of purifying milk. In reference to the last quotation, made by M. Diffloth, Professor Harrison, of the Bacteriological Department of the Ontario Agricultural College, Guelph, in response to a query, writes us as follows: "In answer to your letter of December 19th, 1904, I may state that I am the individual quoted by M. Diffloth. You will find a full account of this work in the transactions of the Canadian Institute for 1902-03, page 467, and following pages." The paper is entitled "The Bacterial Con-

tamination of Milk and Its Control." A reprint of that portion of Professor Harrison's paper, which refers to the cleaning of milk by centrifugal force, appears at page 84 of this issue.

Observations on Poisoning by Carbolic Acid.—In a communication on poisoning by carbolic acid and its proper treatment, published in the *New York Medical Journal*, October 8th, 1903, by Dr. Charles V. Burke, the author says: "Alcohol is of great value, and, if given promptly, and followed by efficient stomach washing, will save life." With this statement we are in accord. His next statement, "The use of the stomach tube is always necessary, when any appreciable quantity of carbolic acid has been taken," is too absolute to be true. That the patient's stomach should be promptly emptied is true, but, if that has been done, why should the attendant force a stiff tube into the patient's esophagus when "there is spasm of the esophageal entrance"? We treated a middle-aged man, who had swallowed 11 drams of liquid carbolic acid, as follows: Forty grains of sulphate of zinc, dissolved in 2 ozs. of whiskey, were given as an emetic about seven minutes after the poison had been swallowed. Vomiting promptly ensued, and the patient's stomach was thoroughly emptied, the odor of the vomited carbolic acid permeating a large house. The stomach tube was not inserted. Two ounces of olive oil were given him one hour afterwards and retained. In an hour the patient walked to his house, which was near by, with assistance. The urine he voided that night was of an olive green color. Next morning, one ounce of Epsom salts was given him; the excrement voided later on smelled strongly of carbolic acid. The patient recovered. Recovery was due in this case to the prompt evacuation of the patient's stomach by a stimulating emetic given about seven minutes after the poison had been swallowed. The whiskey was an appropriate vehicle for the emetic. Usually the treatment of carbolic acid poisoning is employed too late to be of service, the patient, if the dose of the poison is large, dying of paralysis of the heart. An emetic of sulphate of zinc in whiskey has an excellent effect in emptying the stomach, and a powder paper containing forty grains of sulphate of zinc should be one of the indispensable preparations in a physician's pocket case.

The People of Montreal Support Vaccination.—The Province of Quebec has happily attained to a degree of freedom from smallpox, quite remarkable when one considers its past history in connection with that plague. Many remember with regret the mortality from smallpox (3,175 deaths), which occurred in Montreal, from June to December, 1885. Since then, great progress has been made in the enforcement of hygienic rules in Quebec. Through the operation of strict regulations providing for the enforcement of isolation, disinfection and vaccination, and also owing to the co-operation of the people in submitting to these regulations, severe outbreaks of smallpox do not occur in the Province of Quebec, and sporadic cases are controlled with comparative ease. The *Montreal Medical Journal*, December, 1904, says: "The medical health officer of Montreal, in his recent report, shows that out of 90 cases of smallpox in Montreal last year, 1903, not one person suffered from the disease who had been vaccinated during the last five years. Two years ago, when the officials visited the schools, over a thousand scholars refused to attend school because they had to submit to vaccination; but this year (1904) they have not had one refusal. In addition to this the Department of Health has now the co-operation of all classes in the community in enforcing vaccination."

A Novel Method of Utilizing the Appendix Vermiformis in Surgical Operations for Cancer of the Intestine.—During a discussion "on the treatment of cancers of the large intestine," at a meeting of the Société de Chirurgie, Paris, November 16th, 1904, Dr. Segond stated that he quite agreed with the opinions of Dr. Quenu, the reader of the paper, as to the treatment of intestinal cancer, accompanied with total or almost total obstruction of the bowel, viz., primary removal of the obstruction by establishing an artificial anus, and, secondly, ablation of the cancer itself two or three weeks afterwards when the general condition of the patient had sufficiently improved to permit of the operation being done with safety. Dr. Quenu's preliminary operation consists in first suturing the large intestine to the abdominal parietes and, afterwards, evacuating the large intestine of feces by puncturing it with a trocar and cannula. As cancer of the large intestine is most frequently found at the cecum, Dr. Segond, in operating for cancer of that portion of the intestine, looks for the

appendix vermiformis, draws it out of the abdomen, cuts off its free end, and inserts a long drain into it, so as to conduct intestinal liquids and gases outside of the surgical dressings, without occasioning any risk of infecting the intestinal serous membrane, which is in contact with the incision.

Is Tuberculosis Transmitted to Man from the Eating of Butcher's Meat?—Dr. Westenhoffer has made some experiments to elucidate the transmission of tuberculosis to man, an account of which was read before the Medical Society of Berlin, Germany, November 3rd, 1904. He inoculated guinea pigs with pieces of flesh taken from animals, which were affected either with acute miliary tuberculosis or with localized tuberculosis of the bones, glands, etc. Positive results proving infection were obtained in the cases in which the flesh of animals affected with miliary tuberculosis was used, and then in only half the cases. Dr. Westenhoffer concludes that butcher's meat affected with miliary tuberculosis should not be offered as food for man. It should also be remembered that the chances of human beings becoming infected with tuberculosis by eating tubercular meat, are much less than the chances of guinea pigs becoming tubercularized after they have been inoculated with tubercular products. According to Dr. Westenhoffer, when a slaughtered animal reveals, on examination, only localized lesions of tuberculosis, its flesh may be used as food for man without danger, if care is taken to cut out the diseased portions and such parts of the carcase as are in contact with the tubercular lesions. These are the only parts of the carcase in which, excluding cases of miliary tuberculosis, bacilli tuberculosis are found. Dr. Westenhoffer's observations on this important point agree with those obtained by other pathologists.

The Association of Major Hysteria with Locomotor Ataxia.—At a meeting of the Hamburg Medical Society (November 15th, 1904), Dr. Nonne presented a female patient, who, four years before, had shown signs of a commencing locomotor ataxia, but who had latterly consulted him for multiple nervous symptoms, of an hysterical character (pseudo-spastic paresis, characteristic anesthetics, great trembling, etc.). After a few treatments by suggestion, the hysterical symptoms disappeared, but the symptoms of locomotor ataxia, which they masked, viz., Argyll Robertson pupil, abolition of the patellar reflex, slight bladder disorder, ataxic gait, etc., reappeared.

J. J. C.

PERSONAL.

DR. J. F. W. ROSS spent a few days in Boston last month.

DR. ALEX. PRIMROSE spent a week in Nova Scotia last month.

DR. R. A. PYNE has again been elected to represent East Toronto in the Local Legislature.

DR. GEORGE CARVETH has closed his private hospital at the corner of College and Huron Streets.

DR. D. C. MEYERS, of Deer Park, returned from England on the 7th ult., after spending about three months on the "t'other side the briny."

DR. HELEN MACMURCHY has kindly consented to edit a short column in the JOURNAL on Public School Hygiene, a subject on which she is particularly well fitted to write.

WE understand that Drs. Temple and Macdonald contemplate some changes as to Bellevue Hospital this summer, and intend to so arrange matters that outside members of the profession can attend their own cases there.

PROFESSOR AND MRS. MCPHEDRAN gave a thoroughly enjoyable at-home to a large number of the profession at their handsome residence on Bloor Street West, in honor of Dr. William Osler, on December 28th. The function was enjoyed by all who had the privilege of being guests.

DR. GEORGE ELLIOTT, proprietor of our contemporary, the *Dominion Medical Monthly*, purchased some short time ago the house belonging to the late Mr. Baines, on the south-east corner of Beverley and Cecil Streets, and, after renovating the interior, moved up from John Street.

DR. H. P. H. GALLOWAY, of Bloor Street East, intends removing with his family to Winnipeg, Man., next August. He is building a house there, and it will be completed by that time. He still remains a partner of Dr. B. E. McKenzie, and in all probability will start an orthopedic hospital in Winnipeg, where there is every prospect of success in that special line of work.

DR. BREFNEY O'REILLY, who has come on so well in his profession, and is still in the early twenties, is to go to Baltimore and be with Dr. Osler until that noted *savant* leaves for England in the spring. The inestimable benefit of such a sojourn and the implied commendation given by Dr. Osler's wish for it is matter of great satisfaction to the young medico's relatives and friends.

PROF. WM. OSLER, of Baltimore, Md., was dined and feted while in Toronto a few weeks ago, and everyone had peculiar pleasure in again meeting so honored a member of the profession on his return to his native city. Dr. Osler will go to Oxford in May to assume the Regius Professorship of Medicine; but it is hoped, before sailing, that he will again favor us with a more prolonged visit than a paltry three days.

THE annual dinner given to the staff of the JOURNAL took place in the banquet-room of the King Edward Hotel on January 4th, and was very successful. Covers were laid for thirty-five, and delightful music was rendered by a male quartette, composed of Messrs. Percy Coward, Gorrie, Howitt and Jellett. Mr. Irving Cameron proposed the toast to "The Journal," and Dr. Charles Sheard gave "some reminiscences of medical journalism." The toast to the collaborators was proposed by Dr. Cassidy, and replied to by Drs. A. J. Johnson, C. R. Dickson and B. E. McKenzie.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

"HAVERGAL LADIES' COLLEGE AND ITS STAFF OF SPECIALISTS."

TORONTO, 43 Grosvenor St., Dec. 28th, 1904.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—The profession is indebted to Dr. MacCallum and your excellent journal for the *exposé* in your December number of the methods of Havergal College and its staff of specialists.

I have treated patients from Havergal College on various occasions, and have never been invited to devote a percentage to the revenues thereof, so that, I presume, I cannot consider myself qualified for a place upon "the staff of specialists in connection with the college." I need not say I have no desire to qualify.

Yours very truly,

D. GIBB WISHART.

DIPHTHERIA, TYPHOID AND SCARLET FEVER RETURNS FOR 1904.

TORONTO, Dec. 27th, 1904.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—I beg to forward you the following returns for the year 1904:

	DIPHTHERIA		SCARLET FEVER		TYPHOID FEVER	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
January	146	13	37	0	2	1
February	122	10	41	0	5	3
March	88	17	30	3	2	1
April	58	7	16	1	9	3
May	55	11	16	2	10	2
June	109	13	27	0	5	3
July	79	2	14	1	12	1
August	99	5	8	1	18	6
September	86	6	21	0	19	6
October	94	3	17	1	16	4
November	153	14	41	2	21	5
December to date	179	13	44	1	12	5

Faithfully yours,

CHARLES SHEARD, M.D.,
Medical Health Officer.

News of the Month.

PROFESSOR WILLIAM OSLER'S ADDRESS BEFORE THE CANADIAN CLUB.

THE Canadian Club had a most distinguished guest at their luncheon at McCoukey's, on December 29th, in Dr. William Osler, whose recent appointment to the position of regius professor at Oxford has given such great satisfaction to his host of Canadian friends. After the repast, Dr. Osler delivered an interesting and entertaining address on "The Triple Relationship which We Canadians Owe." He referred first to the cordial reception always accorded Canadian people in the United States, and urged that instead of any carping criticism being levelled at our neighbors over the border, there should be reciprocated that kindly feeling which he found always existed in the States towards those who went there from the Dominion. He made some humorous as well as practical remarks on the incessant flitting of our young people to the United States, and whilst it was bad enough to lose the men we certainly could not afford to let the girls go as well. He suggested a \$100 tax on every girl leaving Canada for the States, and as an incentive to young men to commit matrimony favored a tax on bachelors.

Dr. Osler, speaking of Imperial Federation, thought the time had arrived for Canada to bear her fair share in the defence of the Empire. As to Canada itself, he urged the bringing up of a race, strong alike in mental, moral and physical character, and thought it was time something was done to put the teachers of this country on a better financial footing. He deprecated so much slander and abuse being introduced into the political life of the Dominion, and while he blamed the newspapers as being responsible for most of it, thought it could be got rid of by the application of a little Christian spirit. Some five hundred people listened to the address with keen interest, and as an indication of the desire to hear the doctor, it may be mentioned that scores were unable to be accommodated at the luncheon, although they succeeded in finding room to participate in the intellectual feast.

Dr. Osler expressed the pleasure it gave him to return to his old town where he received his early education, where he had so many friends, and a town to which his family owed so much. He said it was with the young people that the future of this country

rested, and facetiously remarked how grateful he was that the chairman had just told him that no member was admitted to the Canadian Club who was over forty years of age. He also humorously observed that there were too many old men knocking about doing active work, and that no man over forty ought to be engaged in it.

Dealing with the first point of his subject, Dr. Osler said it might be fortunate or otherwise that Canada was so situated in having to the south one of the largest and most powerful nations on earth. As Britishers they should feel proud of it, for there never was a nation, ancient or modern, that had such a child, neither was there ever likely to be again. The United States had for Canadians a serious and important influence. One influence was the incessant dribbling over the border of young men, and he was told that there were in the United States to-day nearly a million Canadians, many of whom occupied prominent positions in financial circles and the leading professions, more particularly in medical and theological departments. They had been successful by reason of two special qualities, industry and thoroughness, the only two qualities worth anything in the make-up of a good man. If it were only a matter of draining the young men Dr. Osler would not mind it so much, but the most serious loss to Canada was that of the young women. Only a few months ago he was talking to a young man who had reached nearly thirty years of age without getting his affections settled, and when he asked him why he did not get married, the young man replied that all the girls who were eligible had gone to the United States. Dr. Osler had the figures from six of the large hospitals in American cities, and of 651 women in the nursing department, 196 were Canadians, which he thought was an enormous proportion, nearly one-third. He felt that something should be done to stop this incessant loss of the future mothers of this country.

As a remedy Dr. Osler could only see two ways, and one which found evident favor with the audience was to get the Dominion Parliament to put a tax on bachelors. Every man who had not at the age of 25 a family to support should, he thought, be helping the other fellow who had a family by paying a good big tax, which would only be a reasonable and rational political measure. And, now, as to the delicate question of the girls. To keep them in the country the doctor would have an export tax of \$100 on every Canadian girl who left Canada for the United States, and here again he found a sympathetic audience. The Canadian girl was, of course, he observed, worth a good deal more, and it would even be worth the while of the country to pay the family of the girl \$1,000 to keep her here. "These," said Dr. Osler, "are the suggestions I throw out to the politicians amongst you."

It was remarkable, continued the doctor, how well Canadians

were treated in the United States, and it was little wonder they went there. They were simply taken into the family, and the question was not asked as to where they came from, but "What can you do?" Very often a carping spirit cropped up on the part of Canadians towards Americans, "but," said Dr. Osler, "when it does come up bear in mind that nearly a million of your countrymen live there, and are treated in such a way as should make you at home remember that whatever feelings you may entertain towards the United States as a nation, it ill-becomes you to speak in any way derogatory of a people amongst whom we live as brethren, and that we could not live better at home." After speaking of various conflicts which had been waged and done so much for this country, Dr. Osler alluded to the Alabama and Alaskan disputes, and pointed out the great compensation Americans brought here every summer by visiting our watering places, and making Canada their favorite resort. They should not also forget that millions of acres south of Alaska, between it and the American border, were being largely taken by American citizens, so that on all accounts Canadians should not lose sight of the fact how inadvisable it was for them to assume in any way an antagonistic or hostile attitude either in the newspapers, in public, or in private life against their American brethren amongst whom so many of them lived in harmony and comfort.

"The British relationship of this country is a very delicate problem," continued Dr. Osler. A great many miles separated the Mother Country from Canada, and the tie, when they came down to it, was after all only one of sentiment. But after all, there was no stronger tie than that of sentiment which ruled us in every relation of life, and what stronger tie was there than that which sent thousands of young men to do battle for the Mother Country when she was in danger in South Africa? There were of course difficulties and troubles which would require a great deal of patience on the part of the politicians of the Mother Country as well as on the part of the politicians at home during the next twenty-five years to promote the proper feelings and harmony which must exist if there was to be a proper organic unity between the colonies and England. It was plain and open talk that there could only be three events before this country, either independence, annexation or some measure of Imperial federation. A great deal of nonsense, Dr. Osler proceeded, was talked with reference to the difficulties connected with Imperial federation. He did not see that there were difficulties in any way to be considered in opposition to the remarkable advantages the entire Empire would gain. The chief difficulty on the part of the British beyond the seas was unquestionably that they wanted everything, and were not willing to give anything in return. If, however, as Cana-

dians they were going to be an integral part of the great world-wide Empire, they would have to take their share in the responsibilities of that Empire. They could not ask the mother to be constantly providing for her children. Canada was now reaching the stage of manhood, and it was high time she was taken into partnership in the affairs of the Empire and contributed her fair share in the expenses as apportioned for carrying on and supporting it.

"And now," said Dr. Osler, "a few words about our own country." What were the ideals which they should cherish with reference to Canada? They should first see that they had a strong race, and fortunately they were situated in a most satisfactory position for proper development. It was often spoken of as being a disadvantage to the country being so far north, but he pointed out that there had rarely been in the history of the world a very strong nation not situated in the north, and it was very much to their advantage in Canada to have a rigorous climate with the winter biting hard at times, as it was more likely to be conducive to the production of a race stronger than any other on the continent. They had already a heterogeneous commingling of English, Irish and Scotch, which was the best mixture the world had ever seen, and if, said the doctor, with a merry twinkle, an Act of Parliament could be passed compelling some Canadians to marry French-Canadian girls, the future of the race would be assured. Then they must have a strong race mentally. That, he admitted, was a very difficult matter, because whilst they could grow corn and potatoes, they could not grow brains, but they could foster elementary education by having everywhere well-equipped schools and school teachers.

"There is no one problem of greater moment in this country than getting well-equipped schoolmasters," urged Dr. Osler. They could get plenty of girls to teach, but he did not believe in boys being brought up under a school-mistress. The difficulty was in getting young men to teach in the high schools, and those would never be obtained unless they were paid better salaries, and made to feel that their profession was one which was not only honorable and useful, and doing the best and highest work for the country, but one in which there was some prospect of looking forward to a pension whereby he would have something to provide against old age. Dr. Osler was gratified to find that the University problem in Canada was rapidly approaching solution. Nothing was more pleasing to one who had known the history of the University question here than to see the rapidity with which the universities were growing. The Provincial University would, he hoped, in time really get to the Provincial breast, and not be bottle-fed, as it had been so long.

"There is no doubt that there has been a great mental awakening in this country," proceeded Dr. Osler, and he found it reflected in the literature as represented by the magazines and scientific journals, whilst poetry, usually not thought much of by business men, was on a much higher level here than in the United States. Whilst poetry was regarded so disparagingly it was none the less an important factor in the history of a nation. Poetry tended to a higher vision, and where there was no vision people would perish, and Dr. Osler humorously suggested that if any of the business men present came across a young fellow scribbling poetry in the office they should at once raise his salary.

"The third and most important thing," said Dr. Osler, "is after all to grow a strong race morally, and that is the hardest of the lot." He did not think that Canadians as a whole were a highly immoral people, and homicides in this country were not nearly so numerous as in the United States. Neither was drunkenness so prevalent as it used to be in the days of our forefathers, and after a few pleasantries at the expense of the Scotchmen, the doctor laughingly remarked that the great change only showed what environments would do. Illegitimacy was also exceedingly rare, and that of itself was an excellent indication of the morals of the people, whilst with another jocular shot of the doctor's "divorces are not so prevalent as some would like them." The latter feature he attributed to the fact that the law was enacted in the Dominion Parliament, but if it had been settled by the Local Legislature he had no doubt that divorces would be as common here as in any other part of the continent.

Dr. Osler's last point was to the effect that there was far too much evil-speaking, lying and slandering in connection with Canadian political life. He thought it was altogether unnecessary and superfluous, and not right that young men should be brought up in an atmosphere in which there should be a constant feeling of hostility, and a slandering attitude in the press towards political opponents. It was not a difficult matter to correct if people would only set their hearts earnestly against it. He regarded it as much worse even than drunkenness to take a man's character away. Political opponents should be dealt with in an ordinary every day Christian spirit. It was said that Christianity could not be brought into politics. It was true as regards a certain type, "but," said Dr. Osler, "don't call it Christianity, but every-day behavior, which, if not strictly St. Paul's teaching, was Aristotle's true gentleman."

A hearty vote of thanks was accorded Dr. Osler for his address.

FORMAL OPENING OF THE NEW ONTARIO MEDICAL LIBRARY IN THE QUEEN'S PARK.

PERHAPS it was characteristic that Dr. Osler, the eminent medico, the Regius Professor of Medicine, the popular author on medical subjects, in making his opening address at the Medical Library, on December 28th, should forget all about the little humbug of formally declaring it open, when the doors had been swinging for hours and everybody was already inside. His shrewd speech, not too fluent, indicated the practical mind and the eye for realities quite as much as the little oversight, and when reminded, the droll



NEW MEDICAL LIBRARY, QUEEN'S PARK.

way in which he handed over the bunch of keys to the dean of the medical faculty and vice-president of the Library Association betrayed the pleasant humor of a man with an extensive outlook.

Physically, Dr. Osler is not a large man as Oslers go, and the family qualities seem to have been refined and distilled, both in his appearance and his talents, in keeping with his reduced stature.

Dr. Reeve took the chair as vice-president, in the absence of Dr. J. F. W. Ross, president of the Library Association, and opened the proceedings about 4.30. A mob of eminent local physicians stood up in the council room of the new library, looking like His Majesty's commons when summoned to the bar of

another place. Behind the chairman and Dr. Osler were five ladies—Dr. Cooper, from Brisbane, Australia, and Dr. Lelia Davis, Dr. Greenway, Dr. McMurchy and Dr. Julia Thomas. Chester Massey and Dr. N. A. Powell also had seats, the latter being librarian.

Dr. Reeve described Dr. Osler's visit as a happy coincidence with the opening of the library. They owed him a great deal, as he was the largest subscriber, except Mr. Massey, who had supplemented their funds by the very handsome donation of \$5,000. Dr. Osler had long ago given words of encouragement and advice worth more even than the \$1,000 he had contributed. Dr. Osler was the author of the most popular text-book on medicine, suited not only to the student, but consulted with advantage by medical men the world over.

Dr. Osler rose amid applause.

It gave him great pleasure to be present, he said, and declare the building open. It was for their intellectual refreshment, always in order for medical men, and for friendly and social intercourse, also always in order. The institution would have a dual influence, a very important direct influence coming first. They could all appreciate their deficiencies. It was a poor doctor, indeed, who had not borne in to him the fact that he could be much better. There was but one way of improvement, the careful and intelligent study of the cases before him. They talked of large experience and years of practice, but these were not necessarily an advantage. Years might bring sterility. Many did not study, and the older they grew the worse doctors they got to be. They could not study without books, and a good reference library was almost impossible for one doctor to gather together. It was better to subscribe to such a library, and have access to all the periodicals and literature of the profession and keep up his cases by reference to the experience of other men.

Such a library fostered the best traditions of the profession, which, without disparagement to others, he considered were older, better and nobler than those of any other profession. They would remember the Hippocratic oath and the high aims of the Greek physicians, which never were equalled, and which were theirs to-day. In a home of this sort such traditions should be nurtured and fostered. There were few finer than their own local traditions, and in such a place portraits of old notables of the profession should be hung, books, papers and manuscripts obtained from their families and stored there, as was done in Boston. The family papers of Dr. Widmer were an example, and all of these should be in a fireproof safe. Records of Dr. Boveille, Dr. Hodder and many older men should, and no doubt would, there find an appropriate storehouse.

There were too many laymen there to let him speak as he would, or he might give the profession away entirely in dealing with the indirect advantages. Even laymen knew that doctors sometimes disagreed, and were a wee bit sensitive with one another. There was a little too much antagonism in certain sections of the profession, and they did not always get along as they should. Some of the older men had had bad teachers. He would not particularize, but they came from bad schools in the Old Country, where the worst possible example of jealousies, bickering and personal animosities among the professors was set to the students. When the seniors were thus in active hostility, what could be expected of the juniors? No man over fifty should ever believe any story told about a contemporary.

"When there is any trouble now," said Dr. Osler, "it is one of these confounded patients—generally a woman—who has stirred up hostility." Great laughter occurred over this passage. They should never under any circumstances listen to anything about a brother practitioner. The laughter was renewed when he added:

"Don't believe it even if you know it's true." A little self-sacrifice would do them no harm and stimulate them in connection with the library. When they got past the bread-and-butter stage—and he knew some who had not got past the bread stage—they should help as they were able. The public ought to know how difficult it was for a doctor to save anything in the first twenty years of his practice. As he got on, such a building should become the object of their careful solicitude.

Amid bursts of laughter he rallied them on their tendency to stock investment and speculation. They had sunk too much in War Eagle and such ventures. Next time a promoter came along they should put \$50 in Golden Fleece and \$100 in the library, a much better investment.

"You might have had the handsomest building in America, with marble front and Grecian candidate, if you had not been such fools financially. Doctors do not appreciate the fact that no doctor has any financial sense. He is not of the profession where he could get it." The library was only a start. They should have their rooms not only filled with books, but a hall built at the back. "God speed you in your future work," he concluded.

Chester Massey had a high admiration for the profession, and thought he had a good right to, for he had had more to do with them than most men of his age, and they had treated him well. There was a formidable array of physicians present, and he hoped it augured well for the new-born child which he might say was now receiving infant baptism. The grade of service and quality of their work the world over entitled medicine to rank next to theology. An ounce of prevention was worth a pound of cure, and as the ministers sounded their notes of warning it was the duty of

the doctors to keep us out of trouble physically, and prevention should be the strongest element in their practice. He suggested a stated periodical visit for the doctor to examine and prescribe and see that all was well. Mr. Massey said that the contribution of which they spoke should be credited to his father's estate, and that he merited no more credit than the humblest citizen. He hoped they would find that they had builded better than they knew.

Dr. Reeve stated that the library was due to the suggestion of the late Dr. J. E. Graham, a portrait of whom would adorn the library. They owed a great deal to their president, Dr. Ross, and next to him to Dr. N. A. Powell.

Dr. Powell, in a conversation with Mr. Massey, had touched him with a quotation from a hymn:

"And shall we ever live
With this poor dying wreck."

In a heart-to-heart talk with Dr. Ross he had aroused his interest. The munificence of Dr. Osler, of Timothy Eaton, of E. B. Osler and the kind consideration of the university authorities had enabled them to acquire the building, worth from \$10,000 to \$12,000, with a lease of twenty-one years entirely free of debt, and with enough money invested to pay the ground rent. They had 7,000 or 8,000 volumes in the library, and hoped to have the medical societies meet there. He invited them all to come in at \$5 a year. They would fit one room in the name of Dr. J. E. Graham and another in the name of Dr. Osler, whom they would claim and name as brother still.

Refreshments were served at the close of the formalities and the visitors spread over the building. The large north room will be used for meetings; the south front room for new books and visitors; the room behind as a coffee room. Upstairs there are five large rooms for stacking books and a large bathroom. A large brick building in the rear will be used for surplus books and magazines. Electric lighting and hot water heating are installed throughout the house, which has been known as the Thorne residence, 9 Queen's Park.

THE THIRTY-EIGHTH ANNUAL MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

THE thirty-eighth annual meeting of the Canadian Medical Association will be held in Halifax, N.S., from the 22nd to the 25th of August, 1905, both days inclusive, under the presidency of Dr. John Stewart, of that city. Recently there was held in Halifax a special meeting of the Medical Society of Nova Scotia, when

were present several members from the surrounding country near Halifax. It was decided that the Medical Society of Nova Scotia should act as hosts and entertainers of the Canadian Medical Association. Dr. G. Carleton Jones has resigned from the position as local secretary, and the President, on the advice of his Executive, has appointed Dr. J. R. Curston as local secretary, Dr. Jones having been appointed chairman of the General Committee of Arrangements. The address in surgery will be delivered by Mr. Francis Caird, of the Royal Infirmary, Edinburgh, and the address in gynecology will be delivered by Dr. Howard A. Kelly, of Johns Hopkins, Baltimore. The title of his address will be "Cystitis in Women." Dr. J. W. Stirling, of Montreal, will deliver an address in ophthalmology. In addition to this there will be addresses in medicine and pathology, and Dr. A. J. McCosh, of New York, will also be asked to present a paper.

The General Secretary is now in communication with the transportation companies as regards rates, and an effort will be made to have transportation extended to Sydney, the Canadian Pittsburg, with return *via* Portland, Boston or New York. From the manner in which the Maritime medical men have taken hold of matters it is expected that the meeting in Halifax will be fully up to the best meeting yet held.

Any one desiring to present papers or specimens or make demonstrations should enter at an early date into communication with the General Secretary, Dr. Geo. Elliott, Toronto.

GOLDEN WEDDING OF DR. ANSON BUCK AND HIS HELPMEET.

THE fiftieth anniversary of the marriage of Dr. Anson Buck and Keturah Adelaide Howell was celebrated on Tuesday, December 27th, at their home, Palermo. There were present their children, Mr. and Mrs. Colin C. McPhee, of Montreal, and Hon. Colin H. and Mrs. Campbell, of Winnipeg, with their infant son, Colin Howell Campbell, and the immediate relatives of Dr. and Mrs. Buck. Two sisters of the bride, Mrs. Teeter, of Burlington, and Mrs. C. P. Lawrence, were the only guests present who attended the ceremony of fifty years ago. Gifts, letters and telegrams of congratulation from different parts of Canada and the United States testified to the very great esteem in which Dr. and Mrs. Buck are held by the many friends they have made.

Dr. Buck, who at the time of his marriage had just graduated from the Royal College of Surgeons, London, England, was the youngest son of Philip Buck, who was born at Lachine, Que., his parents at that time making their way with other U. E. Loyal-

ists to Canada at the close of the War of the American Revolution. Mrs. Buck was the second daughter of John Triller Howell, also of U. E. Loyalist stock, so that for over a century both families have been identified with the history of Halton County. Dr. Buck began the practice of his profession in his native village, and soon succeeded in building up a very extensive practice, which he has attended to for fifty-one years, and to-day is as active and energetic as at any time during the half century. In addition to the demands of his practice Dr. Buck has devoted a great deal of attention to political, municipal and church affairs. For thirty-seven years he has been a member of the Township Council of Trafalgar, twenty as reeve, and for twenty-three years he sat in the County Council. He has also been greatly interested in temperance work. In politics Dr. Buck has been an enthusiastic Liberal.

Dr. and Mrs. Buck have the best wishes of their host of friends for many more years of health and happiness.

DEATHS IN NOVEMBER, 1904.

THE returns from the office of the Provincial Board of Health for November are not so complete as those received a year ago, as several municipalities failed to report and the number of deaths recorded are much less. The deaths, as reported in November, 1903, were 2,081, and for the same period this year are 1,910 from a reporting population of 1,900,100, but the death rate per 1,000 remains practically the same, being 12.1 and 12 per cent.

The decrease in the number of cases and deaths of infectious diseases is the most interesting feature of the returns. The total number of cases reported for November this year is 856, and deaths 225, while for the same month in 1903, as may be seen by the table below, 1,062 cases and 259 deaths were reported, which is a case decrease of nearly 20 per cent. and in deaths 13 per cent.

COMPARATIVE TABLE

	1904		1903	
	Cases	Deaths	Cases	Deaths
Smallpox	2	0	5	0
Scarlet Fever.....	205	8	276	9
Diphtheria	316	45	476	64
Measles.....	12	1	29	5
Whooping Cough.....	23	1	30	14
Typhoid Fever.....	171	43	109	30
Consumption	127	127	137	137
Total.....	856	225	1062	259

ONTARIO MEDICAL ASSOCIATION.

THE annual meeting of the Ontario Medical Association will be held in Toronto, June 6th, 7th and 8th next, under the presidency of Dr. William Burt, of Paris.

Strong committees on papers and on arrangements have been appointed under the chairmanship, respectively, of Dr. A. Primrose and Mr. I. H. Cameron.

A considerable number of papers are already promised, and in addition the committee is pleased to announce that they have received word from Dr. Albert Ochsner, of Chicago, accepting the invitation of the Association to present a paper in surgery.

The personnel of the two local committees is as follows:

Committee on Papers and Business—Dr. A. Primrose, chairman; Dr. N. A. Powell, Dr. J. F. W. Ross, Dr. A. A. Macdonald, Dr. Allen Baines, Dr. R. D. Rudolf, Dr. W. B. Thistle, Dr. R. A. Pyne, Dr. Clarence Starr, Dr. J. M. MacCallum, Dr. W. H. Ellis, Dr. N. H. Beemer, Dr. Price Brown.

Committee on Arrangements—Mr. I. H. Cameron, chairman; Dr. R. A. Reeve, Dr. A. H. Wright, Dr. G. A. Peters, Dr. J. A. Temple, Dr. W. J. Wagner, Dr. H. C. Scadding, Dr. H. T. Machell, Dr. Charles Sheard, Dr. W. P. Caven, Dr. A. McPhedran, Dr. H. C. Parsons, Dr. B. L. Riordan, Dr. P. L. Scott, Dr. W. Goldie, Dr. G. B. Smith, Dr. Hamilton.

ITEMS OF INTEREST.

Gift by Lord Mountstephen.—Lord Mountstephen has given £200,000 of Argentine bonds to King Edward's hospital fund, sufficient to bring in £11,000 yearly. The King has written, personally thanking him for his "magnificent donation."

Senator Sullivan's Jubilee.—This spring Queen's Medical College will celebrate Senator Sullivan's jubilee, when he will be made an honorary professor, and given the degree of LL.D. At the medical banquet recently Dr. Sullivan announced his intention to resign his chair of surgery. Fifty years ago he entered the college as a student.

Dr. Johnston, of Fergus, Stricken Down.—On Saturday, the 24th of December, Dr. Johnston, of Fergus, started from that village to drive to the home of his brother in Eramosa for the purpose of spending Christmas with him. On his way through Gara-

fraxa he called at the house of Mr. Andrew Thomson to see a sick child, and decided to stay there all night. He stayed there over Sunday, and by Monday morning was so ill that he could not proceed on his journey, and had to remain in bed. He grew worse very rapidly, and soon several doctors were in attendance on him, who found that the complication of disorders from which he had been suffering for a long time had come to an acute stage. We are glad to know, as we go to press, that the doctor is rapidly progressing towards recovery.

Had a Pleasant Reunion.—A reunion of the members of the house staff and ex-house staff of the Toronto General Hospital took place at the Toronto Club on Thursday evening, December 29th, among those present being Drs. J. N. E. Brown, Dawson City; T. H. Middlebro', Owen Sound; A. S. Tilley, Bowmanville; H. J. Way, of Chicago; Drs. H. B. Anderson, H. A. Bruce, Fred. Fenton and Harold Parsons, Toronto. Dr. Charles O'Reilly was the only guest and congratulated his old house staff present on their prosperity in the honorable profession in which they were working. Two hundred and twenty house surgeons had come and gone during his *régime*. Since the year 1892-93 the patients had increased from 2,800 to nearly 4,000, and the house staff now numbers fourteen. It was proposed to inaugurate a society or association of the "ex-house staff, Toronto General Hospital," and to have the joint meetings, if possible, in August or September of 1905.

Calgary's Successful Sanatorium Receiving Much Attention.—The Calgary Sanatorium for the treatment of incipient pulmonary tuberculosis has verified the fact, through the many patients that have been treated in that institution, and who to-day are following their vocation in life with perfect health and strength that the air, climate and altitude of Calgary is exceedingly beneficial to patients suffering from that disease. The open air treatment introduced by the late Dr. Ernest Wills, of each individual patient, is observed and directed in every detail by the physician in charge. The patient on arrival is at first placed in the main building, and later, if it is thought advisable, he lives and sleeps in a specially constructed cottage with canvas walls, where ventilation is perfect and heat properly regulated during the winter months. Dr. G. M. Atkin, M.B., who has made a special study of pulmonary tuberculosis, has charge of the sanatorium. Here he resides so that each individual patient is under his personal observation. In this way by studying the requirements of each case the best results are obtainable. Mrs. Wills, wife of the late Ernest Wills, M.D., who formulated the plan and built the sanatorium, has charge of the executive work of the institution.

Biloxi Sanatorium.—The attention of the profession throughout the Dominion is called to the fact that on the sunny shores of the Gulf of Mexico there has been recently completed a thoroughly up-to-date sanatorium, especially designed and constructed for convalescent and nerve-tired patients. The great advantages that this institution presents to the profession in point of climate, location, equipment justify us in saying that we physicians of a much colder clime should extend a helping hand to this institution by sending those of our patients whose conditions necessitates warm and out-door exercise, for at the sanatorium at Biloxi, Mississippi, they can certainly get these to the utmost, as well as everything which can be thought of in an institution for the improvement of sick or convalescent people. A feature which marks this institution as almost unique, is the splendid bathing facility, which location upon the very beach of the gulf affords. By a simple device, the salt water is automatically pumped into the bath-annex, where hot salt baths, plain or complex can be given in any kind of weather or season, as well as bathing in the gulf itself, for the more robust.

Adnephryn 1 to 1,000 Solution.—Medical science is indebted to Prof. Abel, of Johns Hopkins University, for the isolation of the active principle of the adrenal glands, and for the exhaustive investigations through which the chemistry of this extremely interesting and valuable substance has been brought to light. Adnephryn is beyond question the most powerful astringent and hemostatic known. One drop of a 1 to 1,000 solution of it instilled into the eye will, within a few seconds, produce a pallor of the conjunctiva. It is also remarkable as a cardiac stimulant. Adnephryn Solution is practically neutral in reaction, non-irritating and stable. It is physiologically tested, always uniform in strength and highly active. In minor surgical operations it is of inestimable value in checking the hemorrhage and affording a clear field. Thus in surgery of the eye, ear, nose, throat, urethra, vagina, etc. it finds extensive application. Medicinally it is useful in epistaxis, hemoptysis, hematemesis, menorrhagia, postpartum hemorrhage, other forms of hemorrhage, etc. All progressive pharmacists supply Adnephryn Solution.

PRURIGO.

“Tar soaps or lotions such as ‘Liquor Carbonis Detergens,’ diluted, are also useful.”

“*Diseases of the Skin*,” vol. i., page 146.

H. RADCLIFFE-CROCKER, M.D.(Lond.), F.R.C.P.

The Physician's Library.

BOOK REVIEWS.

A Manual of Personal Hygiene. Proper living upon a Physiologic Basis. By American authors. Edited by WALTER L. PYLE, A.M., M.D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Second edition, revised and enlarged. 12mo volume of 441 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Bound in silk, \$1.50 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

The second edition of Dr. Pyle's work, which appears four years after the first edition, contains numerous additions, including an illustrated system of Home Gymnastics, a chapter on Domestic Hygiene, and an appendix in which simpler methods of Hydrotherapy, Thermotherapy and Mechanotherapy and a section on First Aid in Medical and Surgical Accidents and Emergencies are given. Dr. B. H. Bergey, of Philadelphia, has joined the list of contributors, and writes the chapter on Domestic Hygiene. The book is written in simple, yet choice language, and may safely be recommended to persons of more or less education, who desire information on matters of personal hygiene. It should be read by the profession, and be recommended by them to their patients. It is handsomely bound and well printed. J. J. C.

Progressive Medicine, a Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica, in the Jefferson Medical College, Philadelphia; assisted by H. R. M. LANDIS, M.D., Philadelphia and New York: Lea Brothers & Company. Six dollars per annum.

The September number begins with a review of recent literature on tuberculosis, giving prominence to its prevention, and the treatment of tuberculous patients by various methods both in sanatoria and at home. The literature relating to diseases of the heart, lungs and blood vessels is also reviewed in the first section.

Under "Dermatology and Syphilis" many common skin diseases are discussed, and recent views on methods of treatment are

given. The writer is not enthusiastic regarding the value of radio-therapy, except in a very limited number of skin diseases.

In the third section a very comprehensive review is given of the "Diseases of the Nervous System."

The last part is devoted to obstetrics. A new sign of early pregnancy is described as a change in the consistence of the vaginal portion of the cervix uteri giving rise to an intermittent hardening and softening which may be appreciated by the finger. Many of the physiological and pathological problems of pregnancy are considered at length. The part relating to eclampsia is extremely interesting. Most obstetricians will agree with the statement that "the exact nature of the cause of puerperal eclampsia is as yet one of the unsolved problems."

The December number comes in five sections, Diseases of the Digestive Tract, Surgery of the Extremities and Orthopedics, Genito-urinary Diseases, Diseases of the Kidneys, and Practical Therapeutics being the leading subjects of discussion and review. All the articles are useful and full of valuable suggestions, which are derived from many sources. The section devoted to practical therapeutics is certainly not the least important, and no harm would be done if two or three times the amount of space were given to the discussion and review of the recent literature relating to this important subject.

A. E.

Clinical Urinology. By ALFRED C. CROFTAN, Professor of Medicine, Chicago Post-Graduate Medical College. New York: William Wood & Co.

Of the many works which have been recently issued upon this subject, this is one of the most satisfactory. It is not too large, it does not confuse by its multiplicity of methods, yet it is thoroughly scientific. In addition to the technical details, which are always clear and concise, it is a clinical work, and discusses in a most satisfactory manner the significance of the various pathological constituents. It can be thoroughly recommended.

J. J. M'K.

Normal Histology and Microscopical Anatomy. By JEREMIAH S. FERGUSON, M.Sc. and M.D., Instructor in Normal Histology, Cornell University Medical College, New York City, with 462 illustrations in the text, many in colors. New York and London: D. Appleton & Co. 1905. Canadian Agents: The George N. Morang Co., 90 Wellington Street West, Toronto.

It is a fact that on many subjects there is undoubted multiplication of books and that especially in medical literature. This volume is, however, an exception to that rule, as the books available on normal histology and microscopical anatomy are but few

in number. Laboratory methods are so different from those of but a few years ago that a new book on this subject is more or less welcome, an accurate knowledge of the minute anatomy of the human organism being entirely essential to the proper understanding of Physiology and Clinical Medicine.

We can say, after carefully perusing Dr. J. S. Ferguson's book, that it is a volume that gives the student a thorough and comprehensive view of normal histology and microscopical anatomy and will greatly aid him in his study along that line.

The Surgical Treatment of Bright's Disease. By GEO. M. EDEBOHLS, A.M., M.D., LL.D., Professor of Diseases of Women in the New York Post-Graduate Medical School and Hospital; Consulting Surgeon to St. Francis Hospital, New York; Consulting Gynecologist to St. John's Riverside Hospital, Yonkers, N.Y., and to the Nyack Hospital, Nyack, N.Y.; Fellow of the New York Academy of Medicine, and of the American Gynecological Society; Honorary Fellow of the Surgical Society of Bucharest; permanent member of the Medical Society of the State of New York, etc. New York: Frank F. Lisecki, Publisher, 9 to 15 Murray Street. 1904.

This very interesting book has been written, not for the purpose of telling the reader how to operate in these cases, as one might be led to suppose from the title, but to meet the very active and insistent demand on the part of the medical profession for such facts and information, especially as regards results, as may at present be available concerning the new treatment, that is, the treatment by surgical interference of so common and so fatal a malady as chronic nephritis. Dr. Edebohls has for a long time past been writing in the journals on this subject, and has now arranged these articles in chronological order for publication. The data and detail connected with his various cases constitute about two-fifths of the present volume. The remaining three-fifths of the volume is devoted almost wholly to the consideration of the results obtainable by operation in a variety of cases.

The book is so admirably arranged that by the use of the index and cross references, information on any special point can be easily obtained, and its whole tone is definite and forceful. It is a book largely composed of facts, and hence must exert a very decided influence on the minds of all who read it. The treatment of seventy-two patients is described, patients who, it must be remembered, presented themselves for operation only as a last resource, and it is most interesting to note the results obtained by operation. They are as follows: Thirteen received no benefit from operation, seven of these died soon after operation, but would have died as soon probably had the operation never been done; fifty-nine ex-

perienced amelioration of their symptoms varying from slight and temporary improvement to complete cure. In nine cases the operation proved directly life-saving by rescuing the patient from immediately impending death. Surely these results justify our having more frequent resort to surgical operation in these cases than has hitherto ever been suggested.

A. J. J.

Pathological Technique. By F. B. MALLORY, M.D., and J. H. WRIGHT, M.D. Third edition, revised and enlarged. Philadelphia: W. B. Saunders & Co. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

That a third edition has become necessary of this well-known text-book testifies not only to its popularity, but also to the diligence of its authors. There is no work in English which can compare with Mallory and Wright's as a laboratory text-book for the working pathologist. This new edition contains so many added methods and so much new matter that it completely supersedes the older editions.

J. J. M'K.

The Surgery of the Diseases of the Appendix Vermiformis and Their Complications. By WILLIAM HENRY BATTLE, F.R.C.S., Surgeon to St. Thomas' Hospital, formerly Surgeon to the Royal Free Hospital, Hunterian Professor of Surgery at the Royal College of Surgeons of England, etc., and EDRED M. CORNER, M.B., B.C., F.R.C.S., surgeon in charge of out-patients to St. Thomas' Hospital, and Assistant Surgeon to the Great Ormond Street Hospital for Sick Children; Erasmus Wilson Lecturer at the Royal College of Surgeons, etc. Chicago: W. T. Keener & Co. 1905.

We have received with the compliments of W. T. Keener & Co., of Chicago, this very latest utterance on the Surgery of the Diseases of the Appendix Vermiformis and Their Complications. Our readers will observe that the authors are two surgeons of St. Thomas' Hospital, London, England. They have "summarized, as briefly as the importance of the subject permits, the views held by the physician and the pathologist, and tried to place the surgeon's view before the profession in such a way that it shall be of practical value." As an instance of the instructive character of the information with which this 12mo of 203 pages is packed, may be mentioned the reference to hematemesis in appendicitis at page 176. So recent an author as Taylor ("The Practice of Medicine," London, 1904) mentions hematemesis as a symptom in cirrhosis of the liver, in gastric cancer, in gastric ulcer, and in splenic anemia, but does not mention the occurrence of hematemesis in appendicitis. This book likewise contains sections on Acute Abdominal Disease, Car-

cinoma, Tubercle and other Disease of the Appendix, Life Insurance, etc., which have not appeared in previous publications on this subject. It is a well-printed, neat, and withal an inexpensive work.

J. J. C.

Hand-Book of Surgical Anatomy. By G. A. WRIGHT, B.A., M.B. (Oxon.), F.R.C.S., Professor of Systematic Surgery in the Owen's Collège; Surgeon to the Manchester Royal Infirmary, etc.; and C. H. PRESTON, M.D., B.S. (Lond.), F.R.C.S., L.D.S. (Eng.), Lecturer on Dental Anatomy in the Owen's College; Assistant Dental Surgeon to the Victoria Dental Hospital of Manchester. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. 1904. Pp. 202. \$1.50 net.

This small book is intended by the authors primarily for the use of students of the Manchester School of Medicine, and no doubt will prove of most value to those students who are pupils of the authors and who are familiar with their methods of presenting the subject for study in their own school. There is no subject of the curriculum in which there is more diversity of method in teaching than in that of anatomy to-day. Consequently, it is very difficult to prepare a text-book which will be of service to all schools in common. The book before us is well and carefully prepared, and contains very few mistakes, but it is not of much value to the student except as a help in revising his work. The student who has done thorough and conscientious work in the dissecting room, and who has seen something of the practice of surgery in the wards, will find this book of interest and of considerable value in connecting anatomical facts with surgical conditions and surgical procedure. The book is not expensive, and we recommend it to students as a guide which will prove both interesting and instructive when wishing to revise their work.

A. P.

Diet in Health and Disease. By JULIUS FRIEDENWALD, M.D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and JOHN RUHRAH, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Octavo volume of 689 pages. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Cloth, \$4.00 net. Canadian Agents: Messrs. J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

This latest work on diet is practical and comprehensive, prepared to meet the needs of the general practitioner, medical student, hospital interne and trained nurse. It contains a full account of foodstuffs, their uses and chemical compositions. Dietetic

management in all diseases in which diet plays a part in treatment is carefully considered, the articles on diet in diseases of the digestive organs containing numerous diet lists and explicit instructions for administering. The feeding of infants and children, of patients before and after anesthesia and surgical operations, and the latest methods for feeding after gastro-intestinal operations have never before been discussed with such practical detail. The subject of rectal enemata is given completely, with recipes and full instructions as to technic. Diet is considered in its relations to age, occupation, and environment; and the beneficial results from the rest cure have been accorded prominent consideration. There is also a section on food adulteration and the resultant diseases.

Enlargement of the Prostate. Its Treatment and Radical Cure.

By MANSELL MOULLIN, M.D. (Oxon.), F.R.C.S., Senior Surgeon and Lecturer in Surgery at the London Hospital; Member of the Council of the Royal College of Surgeons; Examiner in Surgery in the University of Cambridge; late Radcliffe Travelling Fellow; Fellow of Pembroke College and Examiner in Surgery in the University of Oxford, and Hunterian Professor at the Royal College of Surgeons. Third edition. London: H. K. Lewis, 136 Gower Street, W.C. 1904. Pp. 199. Price 6s.

The work of this author in his published writings on the surgery of the prostate gland is so well known that it is unnecessary to make any extended reference to the book which now appears in its third edition. It forms a most reliable guide to the treatment of enlarged prostate. The subject is treated with that conservatism which is characteristic of the British surgeon. A combination of calm and unbiased judgment, with an extensive practical experience in the various methods of treatment has enabled the author to make a contribution to the literature of this subject which is of the greatest possible value.

The normal prostate is described from the physiological and from the anatomical standpoint. The pathology of prostatic hypertrophy is explained, and the results of that hypertrophy upon the urinary organs and upon the system in general are fully described. The author describes the "local treatment" in a most thorough manner, and from this standpoint gives some most excellent advice, not only in the management of the early symptoms of mechanical obstruction to the outflow of urine from the bladder, but also in the treatment of the various complications which may arise subsequently. The author favors the suprapubic operation for removal of the gland as the most successful method of dealing with the trouble in a radical manner. It would appear that the result of the experience, which has become more and more

extensive year by year, has shown most conclusively that the suprapubic route is the safest and most efficient method, and we thoroughly agree with the author in this view.

We unhesitatingly recommend the work of Mr. Mansell Moullin to all practitioners as a most complete, reasonable and thoroughly scientific monograph on enlargement of the prostate.

A. P.

The Surgery of the Abdomen. Part I.—Appendicitis and Other Diseases About the Appendix. By BAYARD HOLMES, B.S., M.D., Professor of Surgery in the University of Illinois, etc. New York: D. Appleton & Co.

We have looked through this book more or less carefully, and must confess to be at a loss to know whether it is written as a joke, or whether the author has arrived at certain conclusions, from his experience or otherwise, that he desires the profession to swallow as facts—right or wrong.

One gets a jolt in the preface, when he is informed that the terms “‘above’ and ‘below’ are not employed in the sense of toward the head or toward the foot, but ‘cephalic’ and ‘caudal’ are used in their places.” We have sometimes heard people described as having their brains located somewhere near their gluteal region, but “cephalic” in this book doesn’t mean that! We think our readers should be so apprised! Then it strikes us as very funny to have that portion of the abdomen “toward the foot” described as the “caudal” end, for where, oh! where does the poor “tail” come in?

We would strongly recommend the profession generally not to take the book too seriously, but if they do require a little light reading occasionally, it might be taken in divided doses.

F. N. G. S.

A Text-Book of Human Histology. Including Microscopic Technique. By Drs. A. A. BOHM and M. VON DAVIDOFF, of Munich, and G. CARL HUBER, M.D., Professor of Histology and Embryology in the University of Michigan, Ann Arbor. Second edition, thoroughly revised and enlarged. Handsome octavo of 525 pages, with 376 original illustrations. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Flexible cloth, \$3.50 net.

The favorable reception accorded to the first American edition of Bohm and Davidoff’s text-book of histology has justified the production of this second edition, wherein we find the same arrangement of subject-matter as was presented in the former edition.

Many of the chapters, especially those dealing with general histology, have been subjected to extensive alterations.

We notice that recognition has been given to the results obtained by the use of prism methods of plastic reproduction, also Maziarski's observations on the ultimate division of the tubular systems of many important glands have been given a place.

The text and illustrations have been extended and improved, which, with its flexible cloth binding, make it most useful and convenient for laboratory use.

W. H. P.

Essentials of Bacteriology. By M. V. BALL, M.D., formerly Resident Physician at the German Hospital, Philadelphia. Fifth edition, thoroughly revised by KARL M. VOGEL, M.D., Assistant Pathologist at the College of Physicians and Surgeons (Columbia University), New York City. 12mo volume of 343 pages, with 96 illustrations, some in colors, and 6 plates. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Cloth, \$1.00 net.

It is with pleasure that we review this work, thoroughly revised in its preparation for this fifth edition. We note the inclusion of all recent advances in the subjects of immunity, tuberculosis, yellow fever, dysentery, bubonic plague and other infectious diseases, making it reflect as faithfully as possible the present status of bacteriology. We can confidently say that this book will be of inestimable service to the student.

W. H. P.

The Prospector. By RALPH CONNOR. Toronto: The Westminster Co., Limited.

A creature of bone, sinew, grit, and godliness, from Varsity campus in a football scrimmage to the Far West, as a messenger of good tidings, the reader follows "Shock," the hero, with interest and admiration. Ralph Connor has put enough bloodiness and general cussedness into his story to enthrall a schoolboy, enough of the call of the wild to claim men for his readers, and enough of tenderness and a picture of an old-fashioned mother to make womankind pause and remember as she turns the pages of "The Prospector."

Neoplasms as Seen Under the Microscope. With notes concerning treatment of cancer in general. New Jersey, N.J.: Reed & Carnrick.

This is the title of one of the most beautifully executed pamphlets we have seen in some time. The colored micro-photographs are splendidly done and true in every detail, especially those of lymph adenoma, polypus of the uterus, myxoma and osteoma durum. The pamphlet is worth procuring, and may be had from the publishers in exchange for a calling card. Send for it by all means.

Saunders' Medical Hand-Atlases.

Atlas and Epitome of General Pathologic Histology. By DR. H. DURCK, of Munich. Edited, with additions, by LUDVIG HEKTOEN, M.D., Professor of Pathology, Rush Medical College, in affiliation with the University of Chicago. With 172 colored figures on 77 lithographic plates, 36 text-cuts, many in colors, and 371 pages of text. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Cloth, \$5.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

This new atlas in Saunders' Medical Hand-Atlases is a valuable addition to the series. All the accepted views regarding the significance of pathologic processes have been concisely stated, conflicting theories having been wisely omitted. The illustrations have been made from original specimens without combining different microscopic fields, extraordinary care having been taken to reproduce them as near perfection as possible. In many cases as high as twenty-six colors have been required to reproduce the original painting. In editing the volume, Dr. Hektoen has incorporated much useful matter; and this atlas ought to be as favorably received as the previous volumes on Special Pathologic Histology.

Gallstones and Their Surgical Treatment. By B. G. A. MOYNIHAN, M.S. (Lond.), F.R.C.S., Senior Assistant Surgeon to Leeds General Infirmary, England. Octavo volume of 386 pages, illustrated with text-cuts, some in colors, and nine colored insert plates. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Cloth, \$4.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

The great and increasing importance of the subject of gallstone disease is a sufficient warrant for the publication of this foretelling work, and Mr. Moynihan's extensive experience in treating cholelithiasis specially fits him to write an authoritative and trustworthy work such as we have found this. A full account is given of the origin and causation of gallstones, and of the pathologic changes and clinical manifestations to which they give rise. Special attention has been paid to the detailed description of the early symptoms of cholelithiasis, enabling a diagnosis to be made in the stage in which surgical treatment can be most safely adopted. Every phase of gallstone disease is dealt with, and is illustrated by a large number of clinical records. The account of the operative treatment of all the forms and complications is full and accurate. The beautiful illustrations, a number of which are in color, including nine insert plates, are unusually clear and artistic, and form a special feature.

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NO. 3.

Original Contributions.

A CASE OF MULTIPLE NEURITIS WITH ATAXIA, SIMULATING TABES DORSALIS; RECOVERY.

BY CAMPBELL MEYERS, M.D., M.R.C.S., ENG., L.R.C.P., LONDON.

Neurologist to St. Michael's Hospital, Toronto.

Mr. President and Fellows,—As the following case of a peripheral nerve lesion presents many analogies to one of disease of the posterior columns of the spinal cord, and believing that cases of this nature are frequently diagnosed as due to a lesion of the cord and published as cases of tabes dorsalis in which a cure has been achieved, I thought it might be of some interest to this Society, and I have much pleasure in presenting the following notes to you. The history of the case is briefly as follows: G. S., married, aged 39, farmer, consulted me March 28th, 1901. In regard to the family: His father died at 63 of Bright's disease. His mother (who died at 67), and also his grandmother, were, the patient says, afflicted with a disease much like his own. His mother, although able to walk about until her last illness, had a general wasting of the muscles, some of which were tonically contracted, especially those of the forearms. The case might have been one of amyotrophic lateral sclerosis. There is no consumption, fits or mental disorder in the family.

Previous History.—His health was always good, he never having had any severe illness. He uses no tobacco and is temperate in the use of alcohol. No venereal disease. He has two children, both of whom are healthy. He has been in the livery

*Read before the Toronto Clinical Society.

business for eleven years and has suffered considerable annoyance at times, but no great financial losses.

Present Illness.—Was apparently quite well until July, 1899. On further examination, however, patient says he was troubled even before this date with unusual depression of spirits, with headache, there being a dull feeling across forehead, with a non-desire to read, from which he formerly derived much pleasure, with failure of sight, the letters in reading running into one another. He also had a fear of beginning any new work, the dread of it being greater than the accomplishment of the actual task once it was commenced. His memory, also, was failing, and he says his sight was worse when his spirits were much depressed. One hot afternoon in July, 1899, he walked several miles under a hot sun, and after this he first noticed peculiar sensations, extending from his feet to his knees, which have continued ever since. He compares the sensation to that which occurs after moving a limb which has been asleep, viz., a tingling, pricking sensation, without actual pain. He also noticed that the leg muscles seemed stiff and less mobile than formerly. The sensation first became troublesome on the ball of either foot. About six months after the legs were attacked the same sensations developed in the forearms and hands and extended on the upper extremities as high as the elbows, the distribution being equal on the two sides. The deranged sensation which was present in the legs equally on either side did not extend higher than the knees, until June, 1900, when it gradually extended up both thighs to his abdomen and there formed what seemed to him like a band around his loins, which passed anteriorly about two inches below the umbilicus. This band has continued to the present, sometimes being more troublesome than at others. He complained that he could not go about his room in the dark owing to uncertainty as to the position of his feet. His fingers, he says, have an unnatural feeling, which he describes as glassy or smooth, and the fingers are less mobile than formerly. This stiffness is evident when he tries to button his vest, but is much more marked when he tries to fasten his collar at the back, where he is unable to see the position of the hands. Sexual power was lost for a time. The bowels were inclined to constipation, and there was a tendency towards frequency of micturition. He has had some shooting rheumatic pains in left leg, also the body and arms, but these were not of long duration nor very severe. He has lost heavily in weight, being probably thirty pounds below his normal. He complains of occasional attacks of sharp abdominal pain, which distresses him very much.

Physical examination shows a well-developed man of six feet in height. No wasting of any muscles. No disturbance of sen-

sibility to touch or pain about upper extremities. Deep reflexes of arms present and equal, the wrist jerks being more active than those of the elbows. Thoracic organs healthy. Sensibility on skin of legs is normal. Both knee jerks are apparently absent when tested in the usual manner, but by the method of Jendrassik a slight but distinct reflex can be obtained on the left side, but none on the right. Romberg's symptom is well marked, and in walking he comes down heavily on his heels, although there is not much excursion of movement. No evident loss of strength in muscles. Pupils of medium size and react to light and accommodation. Examination of optic discs shows no evidence of optic neuritis. He says his physician told him he had locomotor ataxia, and he consulted me to see if anything could be done for him. After examining his condition, I told him I considered his trouble was peripheral and not due to any lesion of the spinal cord, and in consequence I gave him a more hopeful prognosis. He decided to return for treatment, and entered my private hospital on April 16th, 1901. His condition at this date was much the same as when I had previously examined him except in two particulars: (1) the girdle sensation had much increased in intensity, and (2) both knee jerks had entirely disappeared, and I was unable to discover the least reflex by any method. In addition, I may add that his walking was worse, his gait more unsteady, the heels brought down with a decided stamp. These changes naturally made the outlook more serious for the patient, and my concern for his future became more marked as time wore on and treatment did not appear to alleviate any of his symptoms. As I tested his knee jerks day after day, only to meet with the same negative result, and as the girdle sensation was becoming more marked, I began to fear I had made an error in diagnosis, and that I really had a case of *tabes dorsalis* to deal with. My satisfaction, therefore, was great when, on the 4th of May, about three weeks after beginning treatment, I was able to elicit a slight knee jerk on both sides, but more marked on the left. This was the turning point of the case, and the other symptoms steadily improved as the knee jerks became stronger. One remarkable phenomenon during his progress towards recovery was the development on the sole of either foot of three bulke, which were attended by sharp burning pains in the affected parts. They developed over the ball and on the heel of each foot, were about half an inch in diameter, and contained a dark serous fluid. They disappeared gradually, leaving no ill effects. The patient steadily improved in all his symptoms and left the hospital on the 4th of June, much improved in every way. In September he wrote me that he continued steadily to improve, and in October he wrote saying he was able to do everything in connection with his work,

and that he expected soon to be as well as ever he had been in his life. The following April he called to tell me that he had completely recovered.

There are several points of interest in the case. The neurasthenic symptoms, of which he first complained, were very marked, and evidently must have lowered the whole tone of his nervous system.

The appearance of these symptoms before the onset of some organic nervous disease would certainly indicate that their presence may make a portion of the nervous system more vulnerable than in a condition of health, which in this case was the peripheral nerves.

That neurasthenia is an affection in which the entire nervous system is weakened is now generally admitted, and hence it is evident that any lesion might affect a given portion of this system, under these conditions, more readily than in health.

The differential diagnosis of cases of ataxic polyneuritis from tabes dorsalis is often exceedingly difficult, especially in view of the fact that the pathological anatomy, as well as many of the symptoms, are identical in these two diseases. Degeneration of the peripheral nerves, including their terminal extremities, is a common lesion in tabes dorsalis. Further, even in this latter affection, the spinal cord may be free from disease, as in neurotabes, in which the lesions consist only in nerve degeneration.

In the history of the case above described that the lesions were chiefly sensory makes the diagnosis much more difficult, and this the more so as the cutaneous sensibility was not implicated, and the ataxy was moderate in amount.

In this case the distinct ataxy, as shown by the change of gait, difficulty of moving about in the dark, and also of performing finer movements with his fingers, Romberg's sign well marked, together with complete loss of knee jerks on both sides, the shooting pains, and later the development of bullæ on the feet, would point to true tabes dorsalis. Had there been with these symptoms any actual paralysis, any doubt of its being a polyneuritis would at once have been removed, since in tabes dorsalis there is no actual loss of power. Again, had there been any positive affection of the bladder or rectum a diagnosis of spinal cord disease would at once have been apparent. The distinct girdle sensation, of which he complained, further complicated the diagnosis, since it is usually considered evidence of a lesion of the spinal cord. The condition of the pupils gave decided assistance, since the Argyll-Robertson pupil is absent from true tabes only in a small minority of cases, and hence the normal reactions of the pupils formed a strong corroborative evidence in favor of polyneuritis. The condition of the fundus oculi afforded, also, like

evidence, the absence of optic atrophy pointing to the same conclusion. Again, in the beginning, sensory symptoms being evident in the extremities, first in the legs and later in the arms, also suggests polyneuritis, as this is its usual course of distribution.

How are the loss of knee jerks and the ataxy to be accounted for in this case? In regard to the loss of knee jerks, there is no doubt, whatever theory of the so-called "tendon-reflex" action is held, that it is due to an interruption of the sensory path. According to Gowers, the arrest of impressions from the afferent muscular nerves is what abolishes the reflex action, and further, that very slight disease in these nerves, too slight to produce other symptoms, is sufficient to arrest the knee jerk. Hence, in this case the loss of knee jerk is, I believe, due to disease in the peripheral termination of these muscular sensory nerves.

In regard to the cause of the muscular inco-ordination, there has been much discussion. That ataxy is not primarily due to loss of cutaneous sensibility is evident from the fact that absolute anesthesia of the skin, due to disease of the conducting path in the cord, may exist without the least inco-ordination. On the other hand, the ataxy may be decided, when the peripheral nerves only are diseased, the posterior columns of the cord being free from disease. Hence the ataxy in all probability is produced by a lesion of the muscular sensory nerves. In other words, the same explanation holds good here as for the loss of knee jerk, the only difference being that probably a more severe lesion is required to produce ataxy than to produce loss of knee jerk, this difference being simply one of intensity, the same structures being affected.

That the cutaneous sensibility was not affected in this case is not extraordinary, since, with a polyneuritis with moderate inco-ordination, the disturbance of the cutaneous sensory nerves is slight, and where there is much loss of sensation there is also usually motor palsy. Hence, it would appear that in polyneuritis there is a decided tendency for the motor muscular nerves and the nerves for cutaneous sensibility to be affected together in certain cases, whilst the muscular sensory nerves are alone or chiefly affected in others. This, I think, explains, in the case under consideration, why, with the marked muscular inco-ordination the cutaneous sensibility was not affected.

MEDICAL MEN AND THE NEW PROVINCES.

BY JOHN HUNTER, M.B.

THE organization of two new provinces in the North-West is not only a question of very great national interest, but also one of special importance to medical men. The geographical proportions of our North-West give assurance of the vast extent of these new provinces. There is, too, not only a reasonable hope, but a practically assured faith, that they will fill up rapidly with an intelligent and progressive people. We have, then, in these two conditions, viz., two large provinces and a great immigration of most desirable settlers, propositions well worthy of being very carefully investigated by medical men, especially the younger members of our profession.

These vast expanses of the most fertile land in the world are being moulded into provincial autonomy. Once established as provinces, they inherit a constitution that gives control over local affairs. An immediate sequence will be the birth of a medical council, with its special provisions governing medical licenses. The present conditions out there are that by paying a fee of some fifty dollars a licensed practitioner in any of the older provinces can legally practice in the Territories. The question at once arises whether it would be any injustice to the medical men already out there to allow present privileges to remain, at least until there is some evidence of crowding. There are many reasons why present conditions should remain, and only one, and that a purely selfish one, why medical men should be kept out. Were the medical men in these new provinces to shut out medical immigration this act would injure their provinces as well as themselves. Medical men throughout the whole Dominion are thoroughly imbued with a patriotic and imperial spirit—Motherland and colonies one and inseparable. Never in our history was this spirit more needed than now, and nowhere more so than in the North-West at the present juncture. Hundreds of thousands of Americans are pouring across our border. These are an entirely different class of immigrants from most of those coming from the Old World. The latter, in many cases, are escaping from poverty and political thralldom. The former are coming from a country inspired with all the sentiments begotten of freedom. The change with these is a purely business proposition. They are a practical, intelligent, resourceful people, and their incoming—according to the ideals they cherish and the influences that will mould their future life—means much for “weal or woe” to our national life. We

can only retain the North-West as a loyal portion of our Dominion by imbuing the minds of the pioneer settlers—come whence they may—with the same sentiments that inspired the pioneers in the older provinces. No class of settlers who go out there can do more to promulgate and perpetuate these patriotic sentiments than medical men. The young doctor makes an exceptionally desirable type of pioneer settler. His education—if he be, and almost invariably he is, the right type morally—fits him for becoming a social centre. His life carries great weight in the community, a statement that can be verified a thousand times from the lives of the pioneer medical men in the older provinces. How many of the brightest incidents in our history are interwoven in the lives of the old family doctors! The educational interests of a new country can have no better founders and up-builders than medical men, nor the church more capable and active officers. Much more could be written, but I think enough has been suggested to prove to our confreres already in the new provinces how much it will be in their interests to allow, at least for some years to come, the immigration of reputable licensed practitioners from the older provinces.

In the above paragraphs an effort has been made to present the question as it refers more particularly to the new provinces themselves. Let us look at it as it affects the older provinces, and especially Ontario. The first question to suggest itself to medical men is a comparison between the conditions as they now exist in, say, Ontario, and those likely to be evolved in the new provinces. It needs only to be stated that, throughout all the more thickly settled portions of Ontario the medical profession is very much overcrowded. It would be scarcely possible to name a rural community, village, town or city where there are not two or more physicians doing the work that one could do quite easily. The result of this overcrowding is just as demoralizing on the community as on the profession. In many instances the whim of a child about the taste of the medicine is quite sufficient to induce the parents to change the doctor; no sooner is a new lodge established than there is a rush of local practitioners to tender their services at a remuneration that any respectable working man would disdain to accept. Worse still than the starvation rates for their services, is the whole atmosphere of the lodge room on the moral fibre of medical men. The typical lodge doctor, and we have scores of them in our towns and cities, is an affable, effeminate creature, without a spark of that aggressive spirit that should be characteristic of medical men. Our young doctors need ten or twenty years of rugged pioneer life to give them the stamina required to meet, as men should, the exigencies of life. Another injurious feature in the experience

of our young men in towns and cities is the ease with which they can shift their critical cases into hospitals or to specialists. From quite a long experience in both country and city practice I can say that it is seldom in the interest of the patient and practically never in the interest of the young practitioner to shirk his duty to his patient and to himself. The patient in the enthusiastic grip of an intelligent young practitioner is in pretty safe hands, and the value of the experience the latter acquires from his critical cases is simply inestimable. It is when the young doctor is far removed from any professional help that he learns to be resourceful. Another gross evil that is menacing both the moral and pecuniary interests of our profession in our larger cities and towns is the so-called contract practice. Every large business or industrial concern has its medical officer. He is employed for the same reason the messenger boy is, viz., to be at the service of his employer. Miss B., an employee of the big departmental store, is taken suddenly ill in the night. A local physician is called. Her case is reported at the office in the morning. The manager rings up the company's doctor and sends him out, post haste, to see the case. The doctor knows it is a direct violation of medical ethics, as well as a personal insult to the physician who was called in, but what can he do? He is a hireling, and must serve his master, so goes into the room, examines the patient, and takes charge of the case. To save himself from the well-merited contempt such conduct deserves he very often concocts some lying excuse to palm off on his outraged confrere.

These are, briefly, a few of the evils incident to practice in congested districts. Surely our young men should be taught to abhor the atmosphere of the lodge room, the serfdom of contract practice, and to use the hospital and specialist as teachers only, but never to relieve them of cases they should resolutely retain and treat themselves. We have now an opportunity of a lifetime, if not of a century, to do a great work for our North-West and for the moral and pecuniary well-being of our profession in the older provinces. Were a crisis like this to arise in the commercial world, how quickly our business men would rise to the occasion. Boards of trade would be summoned, resolutions passed, and delegations rushed to Ottawa on every train. How is it that medical men are so terribly handicapped when concerted action is required? We see our helplessness personified in the character of the men we elect to represent us in the Medical Council. We elect our men almost exclusively on account of their affable manner or personality, never on account of the "grip" they have on medical questions. Hence the meetings of our Council are seldom followed by any interest whatever by

the profession at large. Were our Medical Council to take aggressive action on any medical question it would certainly be an innovation. Until we are prepared, as an electorate, to select candidates who have strong convictions on medical questions and nerve enough to uphold them in face of all opposition, we will never have an efficient Council. The *personnel* of the present Medical Council may not be much worse than that of any of its predecessors, but it is not one to inspire much hope in its ability to rise to an occasion like the present one and do some aggressive work in the interests of the profession.

We cannot look to our medical press, either, for effective work in a crisis. It is under a blighting influence, too, though not the same as that which emasculates the Medical Council. Through the niggardliness or indifference of the great mass of medical men, the medical press is not properly supported, and therefore it has to depend on the advertising columns of the big proprietary medicine houses. For a potent medical press, we must look to the profession at large for substantial support, as well as for a free expression of its opinion.

The reader may say that this is rather a pessimistic view of our helplessness, but the writer must confess that his optimism received a rather rude shock when he called up our representatives on the Council, editors of our medical journals, professors in our universities and several well-known practitioners, only to find the same wail of helplessness from all alike. One excuse for the apathy was found in the opinion that the new provinces would have full control of all educational matters, and therefore it would be useless to petition the Dominion Government for any concessions. Be this as it may, there could be no more opportune time for starting the agitation, as it would attract special attention to the value of the Roddick Bill. For reasons already given we cannot look to either the Medical Council or the medical press for concerted action. It remains, then, for individual members of the profession to write their confreres in the House, and to present our claims on the new provinces through the lay and medical press. If the agitation do nothing more than expose the present status of our Council and press, the effort will not be in vain, for the very best way to get rid of evil conditions is to expose them. There is material enough in our profession to furnish us with a virile Council and press.

Medical Jurisprudence and

... IN CHARGE OF ...

W. A. YOUNG, M.D.

Toxicology.

ERZINO VS. TORONTO GENERAL HOSPITAL.

A CASE was decided by Judge Winchester, the Senior Judge of the County Court of York, a few weeks since, which is of peculiar interest to hospitals.

The action was brought by the plaintiff to recover from the Trustees of the Toronto General Hospital the sum of \$160, which the plaintiff claimed had been taken from him by the defendant, its servants or agents. The facts in connection with the case appear sufficiently in the text of the judgment.

Mr. R. W. Eyre appeared as counsel for the plaintiff, and Mr. H. D. Gamble, Solicitor for the Toronto General Hospital, appeared as counsel for the defendant.

Mr. Gamble contended for the defendant that the defendant could not be made liable as bailee for if this was a bailment, the defendant was a gratuitous bailee, and that to make it liable gross negligence on its part must be shown, whereas upon the evidence no negligence whatever had been proved.

In answer to the charge that the money had been stolen by one of the servants of the defendant, he submitted that the defendant could only be made liable where the tort of the servant was within the scope of the employment, and referred to *Cheshire v. Bailey*, 21, T.L.R., 130, where the law is very clearly set forth.

He further submitted that the defendant could not be made liable by any analogy to inn-keepers, the law with relation to inn-keepers being peculiar, inn-keepers being one of the exceptions to the rule that bailees are not insurers of the goods in their custody. Among other cases he referred to *Cayle's case*, 1 Sm. L.C., 11 Ed., page 119, which is the leading case on this subject.

He also submitted that boarding-house keepers not being responsible for the loss of their lodgers' property, and the defendant being in a very much stronger position than boarding-house keepers, inasmuch as the institution was a charitable one, making no profit whatever from the inmate, could not be held liable. He also referred to *Holder v. Soulby*, 3 C.B., N.S., 254.

The following is the judgment in part:

The evidence of the plaintiff is to the effect that the plaintiff, being seriously injured, was taken to the Emergency Branch Hospital, and while there, \$160, wrapped up in a handkerchief, and tied around his leg below the knee, was taken by a ward tender in the hospital's service, and that he has not received any part of the money since. The ward tender was arrested on a charge of the theft of this money, and a handkerchief was found in his possession which the plaintiff stated was the one in which the money was wrapped. On the hearing of the charge of theft the ward tender was acquitted.

The evidence on behalf of the Defendant contradicted that given by the plaintiff so far as the place and manner of his undressing, and would indicate that there was no money taken from him either by the ward tender or any one else. . . .

The hospital was sued as being responsible for the actions of its servant, it being claimed that he took the money. The limits of liability of a master for torts of a servant are set out in *Clerk v. Lindell* on torts, p. 69, as follows: "Where the relationship of master and servant exists, the employer is liable for all torts committed by the party employed, provided, first, they were within what is usually termed the scope of the employment; and, secondly, were either unintentional, that is to say, amounted to mere acts of negligence, or if intentional, were intended to be done in the interest and for the benefit of the employer."

It is clear that if the money in question were taken by the ward tender, as claimed, the taking was not done within the scope of his employment as set forth in the above limits. On this point I would refer to *Cheshire v. Bailey*, 21, T.L.R., 130, handed in by defendant's counsel. . . .

The case of *Houlder v. Souby*, 8, C.B.N.S., 254, decided that the law imposes no obligation upon a lodging-house keeper to take care of the goods of his lodger. . . .

The defendant herein is not brought within the cases applicable to inn-keepers, nor is it a bailee for hire, as the plaintiff paid nothing for the services rendered to him, nor was he charged anything. . . .

The evidence herein showed that the defendant in hiring the ward tender was not negligent, and that no complaint was made against him until the present case.

Not only upon the evidence, but also upon the law, I am of opinion the plaintiff fails to prove his claim against the defendant.

The action was dismissed with costs.

W. A. Y

Selected Articles.

THE INTERNAL TREATMENT OF DISEASES OF THE BLADDER.

BY LOUIS STERN, M.D., NEW YORK.

WHILE in cystitis local measures have to a great extent superseded the internal treatment, the latter is not as unimportant as some authors are inclined to think. In the old *materia medica* the so-called urogenital remedies occupied a prominent place. They were employed indiscriminately in most genito-urinary diseases, and at that time regarded as almost indispensable. Nowadays, however, their use finds but limited application, and in much smaller doses than those in which they were formerly prescribed.

The tendency at the present time is to regard affections of the bladder and urethra, and the prostatic troubles with which they are so often associated, as chiefly of bacterial origin. This has had a corresponding influence upon the internal treatment. Until the introduction of hexamethylene tetramin, which is known commercially as urotropin, formin, aminoform, cystogen, etc., there was no drug which could be regarded as an internal antiseptic in the true sense of the word. In fact, the only drugs of this kind which had been administered were benzoic acid, salol and boric and salicylic acids, and these are not sufficiently powerful to produce any marked destructive action upon micro-organisms in the urinary tract. On the other hand, hexamethylene tetramin has the property of setting free formaldehyde during its process of elimination through the urine, and thus bringing this powerful antiseptic directly to bear upon the source of the infection. It therefore quickly found its way into genito-urinary therapy, and for a time seemed to leave nothing to be wished for. Then came reports of its irritating the kidney and producing hematuria and albuminuria and disturbances of the digestive organs. It was also found that in certain cases in which the urine was strongly ammoniacal the drug was not decomposed and did not yield up its formaldehyde. Unfortunately, these were often the very cases in which its action was most desired, so that there was considerable room for improvement, and when a new derivative of hexamethylene tetramin, known as helmitol,

or hexamethylene tetramin anhydromethylene citrate, was brought forward, which seemed to possess some important advantages, I was not loath to give it a trial.

My experience with the new drug has now extended over six months, and during that time I have had occasion to frequently test it and convince myself of its merits. Compared with hexamethylene tetramin I have found that it can be given in much larger doses without exciting irritation, and that it is more uniform in its action; in fact, the reaction of the urine seems to exert no influence upon its sterilizing effect, and this factor can be ignored during its administration.

In most of my cases I have had no opportunity to make thorough examinations of the urine, so that I was unable to determine its degree of antiseptic power; all that I know is that in cases in which the urine was turbid and filled with mucus and pus, it rapidly cleared up and lost its offensive odor.

The drug also seems to have some pain-relieving quality, for even before the urine had become perfectly sterile the tenesmus was often greatly diminished.

I have recently read an extract of an article that appeared in a German journal detailing some comparative experiments with hexamethylene tetramin and helmitol in the Hygienic Institute of Zurich, in which the author, Dr. Muller, after a series of thorough tests, found that the latter had a much more pronounced anti-bacterial action than the former. All my experience, however, has been purely clinical, and is recorded in the following observations, the only ones of which I was able to keep notes:

CASE 1.—Mr. J. C., sixty-nine years old, had suffered for several years with bladder trouble and more or less tenesmus. When I first saw him (May 15th, 1903), he was passing his water about every hour, and complained of considerable pain during the act, and only voided 2 or 3 drams at a time. He passed in my presence about $3\frac{1}{2}$ drams of urine, which was very turbid and ammoniacal, and contained considerable mucus and pus. Examination of his urethra revealed no stricture, but on examining per rectum I found enlargement of the left lobe of the prostate. Treatment was initiated by gentle massage of the prostate and 15 grains of helmitol given four times a day. I saw him again on May 17th, and learned that he was no better; it seemed as though the urine flowed a little more freely, but try as he would he could not pass over 3 drams in my office. I did not massage his prostate this time, but waited until May 19th, when this procedure was thoroughly carried out. Up to that time he had been unable to pass more than 3 drams of urine, which had not shown any improvement thus far. On May 23rd the patient returned, and on this occasion he passed $6\frac{1}{2}$ drams of urine,

which was much less turbid and neutral in reaction. The prostate was again massaged and he was given 15 grains of helmitol every three hours until 75 grains had been taken. The additional 15 grains seemed to help him very much, for on May 26th he voided in separate glasses about 8 ounces of urine, almost clear and of slightly acid reaction. The tenesmus had greatly diminished, and he was able to hold his water for longer intervals. The prostatic trouble had not improved thus far under treatment, which was continued. May 30th the condition was not much changed since his last visit, only that he said he felt much better, and that during the night he did not have to get up as often as formerly. June 2nd he passed 7 ounces of urine in my office, which was slightly acid and almost clear, the ammoniacal smell having entirely disappeared. His prostate was smaller, and he said he had only been up three times the previous night to pass his urine. I reduced the dose of helmitol to 15 grains, four times a day, but still kept up prostatic massage. June 5th, patient returned, well pleased. The urine was entirely clear, neutral in reaction, and was passed at much longer intervals, only once at night. The prostate had further diminished in size, although not quite normal. The dose of helmitol was now reduced to 15 grains, morning and evening. June 9th, the symptoms had all disappeared and he had slept for seven consecutive hours without awakening, something he had not done for three years. The helmitol was then discontinued, but the massage kept up for several more weeks. At that time the urine was neutral, perfectly clear, and contained no pus or mucus. July 2nd he was discharged from treatment.

CASE 2.—Miss M. A. R., chorus girl, consulted me April 14th, 1903, complaining of considerable burning when passing her urine, which was quite frequent. On examination I found an acute gonorrhea, which had invaded her urethra. I gave her a hot saline douche, painted the whole vagina with a 4 per cent. protargol solution, and inserted a dry cotton tampon. Helmitol, 15 grains, was prescribed four times daily, and she was instructed about her diet, etc. On the following day I repeated the treatment, and instructed her that on removing the tampon she should take a hot douche. This treatment was continued up to the ninth day when the burning had entirely disappeared, though the discharge had not all ceased. The dose of helmitol was reduced to 15 grains, three times a day, and the vagina swabbed with a 6 per cent. protargol solution. On the seventeenth day I discharged her cured.

CASE 3.—Mrs. R. J. C. came to me with the following history: She was passing urine about every hour, had more or less tenesmus, and had a dull feeling over the pubes for the last six months.

She was unable to void urine in my office, so I drew off about 2 ounces. It was very ammoniacal and filled with pus, but contained no sugar or albumin. Treatment was begun by washing out her bladder with a one-half per cent. solution of protargol, using about 11 ounces, and prescribing 15 grains of helmitol four times daily. She returned in two days without marked improvement. Treatment was continued. On her next visit, three days later, she stated that during the night while on the commode she felt as though she had passed a large lump of something, which she brought to me, and which, on examination, was found to be a mixture of blood, pus and mucus. I again washed out her bladder with a 1 per cent. protargol solution and continued the helmitol. She called the following day and said she felt better than she had for over six months. Examination of the urine showed that the pus had diminished one-half. The tenesmus had subsided entirely, and the interval between urinations had lengthened to about two hours. I kept up the original treatment for the next six weeks, and at the end of the fourth week the urine was entirely free from pus and the tenesmus had entirely disappeared.

CASE 4.—Mrs. S. C. G., aged twenty-seven years, mother of four children. About two months before consulting me she had a miscarriage, and was confined to her bed about three weeks, during which time she was curetted. Directly after the operation she complained of frequent micturition, and at the end of urination voided considerable blood and pus. She had consulted her regular family physician, who seemed to be unable to give her any relief, and sent her to me. On examination, on June 13th, I found the parts normal in appearance, except that the meatus urinarius was slightly inflamed. I catheterized her and drew off about 5 ounces of ammoniacal urine, which contained considerable pus mixed with blood. I immediately washed out her bladder with a one-half per cent. solution of protargol, prescribed 15 grains of helmitol, four times daily, and sent her home to bed. I called the next day, and again washed out the bladder with a one-half per cent. protargol solution, and kept up the helmitol. This same procedure was repeated daily. Up to the fourth day there was no marked improvement, but on the fifth day the urine commenced to clear. I then increased the strength of the protargol solution to 1 per cent., and continued the helmitol. This treatment was continued for ten days more, when she came to my office. Examination showed the urine to be almost free from pus and blood. The helmitol was continued, but the irrigations stopped, and at the end of another week I discharged her cured.

CASE 5.—Mr. H. A. N. called at my office May 20th, 1903, with the following history: Three weeks prior he had contracted

gonorrhea and made a confidant of one of his clunks, who in turn advised him to get a patent preparation. This he had injected three times a day, and at the end of ten days the discharge had ceased, but he noticed a peculiar dull pain over the pubes. On examination of his urine (two glass test) the first glass was very turbid, while the second was nearly as bad. He was passing urine every hour or so. His temperature was 101.2 deg. F. I advised him to go home to bed, and prescribed 15 grains of helmitol four times a day, and ordered hot applications to be made over the pubes. On visiting him the next day I found his temperature 100.8 deg. F.; the condition of the urine was about the same. Treatment was continued. On the following day the temperature was 99.2 deg.; the pain had almost gone, and the urine looked better, although it still contained some pus. On the fourth day I washed out his bladder (glass catheter) with a 1 per cent. solution of protargol. On the fifth day the urine was much clearer, and the bladder was washed out as before. On the sixth day the urine was entirely free from pus. Helmitol was continued, but the irrigations stopped. The patient continued taking the drug for fourteen days, when his urine was normal and free from pus, and has remained so.

CASE 6.—E. R. L., thirty-two years old, had suffered with gonorrhea since June 3rd. On August 3rd he complained of urinary tenesmus, and passed a very uncomfortable night, having to get up several times to urinate. On examination I found both portions of urine very turbid, with traces of albumin. Helmitol, 15 grains, was prescribed four times daily. August 4th, urinary tenesmus and turbidity unchanged. August 5th, urinary tenesmus not so marked, but still severe. August 6th, treatment continued. Tenesmus at night about the same; urine still turbid, and of slightly acid reaction. August 7th, urine slightly less turbid. August 8th, urine as bad as on August 3rd, and on passing his water more or less pain in the urethra. August 9th, urine slightly improved, and treatment kept up. August 10th, urine looked better than on any day heretofore, and showed no trace of albumin. August 11th, patient complained of a slight chill, which, no doubt, was caused by sleeping with open window at night and a sudden rainstorm coming on. The urine was much improved, but there was a slight discharge from the urethra. Temperature normal. August 12th, urine less turbid than on preceding day; urethral discharge still present. August 13th, urine almost clear save for a few floating shreds. August 15th, urine clear save a few shreds; slightly acid reaction. Tenesmus had entirely disappeared since the fourth day. Still a slight urethral discharge. The above treatment was continued until August 20th, when the discharge had ceased entirely, the urine being normal except a

few shreds. Helmitol, 15 grains, four times a day, was continued, and I gave him some gelatin bougies containing one-half grain of protargol, to be inserted at night before retiring. This treatment was kept up until September 1st, when all shreds had disappeared from the urine.

CASE 7.—R. M. S., aged twenty-seven years, actor, called to see me May 5th with an acute anterior gonorrhea, this being his first experience. On examination I found the meatus highly inflamed and swollen and a very profuse discharge. He complained of an intense burning sensation in passing his urine, and had very painful chordee four or five times during the day. I gave him a 1 per cent. protargol solution to use in a hand syringe, and 15 grains of helmitol every four hours, and for the constant erections directed him to use ice cold ablutions. At his next visit, May 7th, the discharge seemed to have increased more than in any of my former cases while using protargol hand injections, but I continued this treatment. The chordee was considerably better, and, although the urine scalded some, this was not quite as severe as on his first visit. May 9th, discharge reduced somewhat, and not so thick and viscid. The burning had nearly subsided; the chordee had all disappeared. May 11th, the discharge was of a sero-purulent character. I increased the strength of the protargol injections to $1\frac{1}{2}$ per cent., and kept up the helmitol. May 14th, the discharge was of almost watery consistency; no pain or discomfort of any kind. Treatment continued. May 18th, the discharge had decreased a great deal, so I discontinued the protargol and substituted $1\frac{1}{2}$ per cent. solution of sulphocarbolate of zinc injection. May 21st, no more discharge seen since the afternoon of the day before. Helmitol was discontinued, but the zinc injection kept up. May 27th, there being no discharge for nearly a week, and the patient having to fill a summer engagement out of town, I advised using the zinc injection for another week. He wrote to me two weeks later that there had been no more discharge, and that he had drank beer and had seen no ill effects.—*Medical News*, February 27th, 1904.

PITYRIASIS RUBRA.

Bath The "Liquor Carbonis Detergens, freely diluted with
Treatment. water."

"*Diseases of the Skin.*"

MALCOLM MORRIS.

THE ALKALOMETRIC PRIMER.*(Abstract.)*

BY W. C. ABBOTT, M.D., CHICAGO, ILL.

HOW TO BEGIN THE PRACTICE OF ALKALOMETRY.

PERHAPS the reason why some men hesitate to adopt the Alkalometric method is from the mistaken idea that to do so means to drop all their old, tried and proven remedies. There is no such necessity. The alkaloids are merely the essence of the old remedies (with some new ones added) in a new and infinitely more dependable form. True, some of the most approved drugs are not represented, for the simple reason that their active principles either have not been or cannot be isolated. Then there are the mineral salts and other preparations which are only possible in their original form.

That the thoroughly posted and equipped alkalometrist is able, from the stock of active-principle granules, to effectively treat almost any disease does not make it necessary that everyone else should do so. Thousands of men use the alkaloids almost exclusively, but more thousands use them wherever they can do so with advantage; and where they prefer to, they use some other form of medication.

He that is right uses the smallest possible quantity of the best obtainable means to produce a desired therapeutic result. He who "knows it all" needs no instruction, but few of us imagine that we have reached that state of wisdom.

ESSENTIAL SUPPLIES.

For the benefit of physicians desiring to investigate alkalometry, and considering that among them there are many who have never yet used the alkaloids, we shall endeavor to here lay down a few primary principles which, digested and followed, will lead to a successful alkalometric practice. First and foremost it is necessary to possess a supply of the remedies most often used. These are, roughly speaking, aconitine, digitalin, strychnine arsenate, calomel, podophyllin, quinine arsenate, "calcidin," (calcium iodized), atropine, lobelin, hyoseyamine, codeine, glonoin, aloin, brucine, calcium sulphide, colchicine, emetine, lithium, benzoate, arbutin, quassin, cicutine, gelseminine, veratrine, iron arsenate, nuclein the sulphocarbolates ("intestinal antiseptics"), mercury, phytolaccin, ergotin, macrotin, aletrin, viburnin, pilocarpine, papayotin, scutellarin, xanthoxylin, cactin and iodoform.

There are some others which would prove desirable, especially some of the "combinations," such as the triple arsenates, strych-

nine and phosphate compound, sulphur compound, Waugh's anodyne, zinc and codeine compound, the anticonstipation granule, etc., but with a supply of the above-named remedies any doctor can "keep house" and do it well.

The doctor will need, too, a fair supply of either wooden or glass vials, $\frac{1}{2}$ -, 1- and 2-dram, and some dispensing envelopes on which his name, address and office hours should appear, together with sufficient space for "directions." These may be either of plain white or manilla paper. The latter are better for general use as they stand wear. A few inch labels and small "stickers" are useful. Then comes the "case." The granules in stock should be in bottles of either 500 or 1,000. The case vials (which contain from 100 to 300 granules usually) can then be refilled "from stock." The latter should be neatly and alphabetically arranged upon shelves and in a drawer should be vials, corks, labels and dispensing envelopes, folding boxes, etc., etc.

According to the necessities of practice the case carried may contain 12 vials or over 100. The most useful is perhaps one carrying about 36 one-dram and 32 one-half-dram vials which hold respectively 200 and 300 granules, with a pocket for prescription blanks and envelopes. This case can be carried in the pocket or hand, or may be slipped into a satchel containing the other necessities for the day's work, indoors or out.

CLINICAL APPLICATION.

Now in office work let us suppose the first case to be: A lady; not very sick; feels tired all the time; appetite poor but tongue fairly clean; bowels constipated. After due deliberation, for nothing should be done hastily, it is decided to give calomel and podophyllin. The granules are poured out on a clean piece of blotter or cloth (the heat of the palm of the hand will be apt to make them stick), and as they are of distinct colors they are put together in a $\frac{1}{2}$ -dram vial, closely corked. This is then put in an envelope on which has been previously written: "Take one of each every half-hour until effect (explaining) and thereafter as needed." Meanwhile give due directions regarding diet, and tell your patient to consult you again in a few days.

The granules above mentioned are so very unlike that they may be safely dispensed together, and are so commonly prescribed that often no case notes need be kept. Suppose, however, instead of constipation, palpitation was the prominent symptom. In this case the strychnine arsenate and digitalin, which would no doubt be prescribed, are so nearly of a color that you would put them in separate vials and use a "sticker" on each, which you would mark in some way intelligible to yourself but *not to your patient*. Now make a note in your case book with name,

date and prescriptions; number them, say 1 and 2, and put the corresponding numbers on the vials. Having directed on the envelope "two of No. 1 before meals and two of No. 2 two hours later," you can dismiss your patient, sure you will do her good and that you will know what you prescribed in case she calls for a renewal or to consult you again.

Soon a small boy rushes in before school and says: "Annie has got cramps and diarrhea and mother wants some medicine." You know the child and start at once to fix the medicine, asking meanwhile, "Does you mother think Annie has any fever?" The uneasy messenger says: "I dunno, but she smells orful." Here, then, three indications are to be met: pain, fetor and diarrhea, accompanied, we are safe in presuming, by more or less fever, requiring several drugs and no end of detail. Let us take a short cut and in our record write: "Annie B., aged four years. Fetid diarrhea, with colic and probably fever."

R	Sulphocarbolate	No. of Granules.	No. of Doses.
	of zinc.....gr. 1-6	20	20
	Aconitine.....gr. 1-134	4	
	Hyoscyamine.....gr. 1-250	2	
	Codeinegr. 1-67	10	
	Saccharin.....	q. s.	

Sig.—One dose every half-hour till relieved.

Now select the granules determined upon, put them all together in a vial and direct on the envelope: "Dissolve all the granules in twenty teaspoonfuls of water, sweeten and give a teaspoonful every half-hour till relieved, then continue in hourly doses." Be sure and tell the boy, "If Annie is not better by the time the medicine is half gone they must send for me." You will likely never hear from this case again. With office patients well known, cut it short by making a note of the prescription on the back of the envelope used and order it kept and returned.

Office hours are over and with a well-filled case of 60 to 100 vials (with a good pocket for prescription blanks, and a thin notebook) stowed away in a small hand-bag, in which are surgical instruments, dressings, a tin box of empty capsules (No. 4), catheters, etc., the morning round begins. Just what we are going to meet we can never even guess and it is for this very reason that the alkalometrist is better fitted to cope with general work than his brothers of the old school, for he goes always prepared.

A case of "colic" needs immediate relief: You give—yourself—a granule each of atropine and another of strychnine with three of dioscorein in a tablespoonful of hot water and leave half a dozen of the first two and double the quantity of the last with instructions to "give one each of Nos. 1 and 2, and three of No.

3, every fifteen minutes till relief." At the same time, having satisfied yourself that the colic is due to fermenting material in the intestine, you dispense six calomel and six podophyllin granules and order "one white and one dark every half-hour till taken, and then prescribe a can of Saline Laxative (or any other "salts") with directions: "A heaping teaspoonful in a glass of water one hour after the last dose of the granules." If repetition is considered needful, order it. Probably before you leave the "colic" will be better and the next day you will find a smiling and happy patient—and a clean one.

So it will go in each instance. Where many different granules are to be left, ask for individual butter or other small dishes, and place the medicine therein. Over each dish place a slip of paper marked "No. 1," "No. 2," etc., and underneath the dosage and "general directions." If you are uncertain of the intelligence of the patient or nurse, place the necessary granules for each dose in a capsule and simply direct "one capsule every two hours," or, as the case may demand. For children make a solution; sweeten it and color. Call for a glass, put into it the number of granules of each kind you want to give during the next twenty-four hours, add a little sugar (or a granule of saccharin) and a granule of carmine and then measure in twenty-four teaspoonfuls of hot water. On a slip of paper write: "One teaspoonful every two hours" (or as the case may be)—and place it in a dish with which cover the glass.

SUCCESS "POINTERS."

These details may seem almost puerile to the practised physician, but they are the little things which make for success. Bear in mind, then:

That you should never give two or more granules of the same color without placing them in separate containers.

That in all cases directions should be plainly written and read over to the patient or nurse, to see that they fully understand them.

That you can dispense each lot of granules in a vial, envelope, a butter-dish, or any small dish found in the ordinary house, but that each such container should be distinctly marked. Don't trust to people's "memory."

That you can make the entire quantity of granules into a solution; but if you do this, and a child is the patient, color and sweeten—it "goes down" better.

That you can put all the granules for one dose into a capsule and so go away feeling secure that the proper quantity will be taken each time.

That it is grossly careless and highly dangerous to leave toxic medicines (such as aconitine or morphine) in "quantity" with

any patient. Where there are children be particularly careful in this matter. Better make a solution.

When giving powerful remedies, carefully acquaint the nurse with what you want to accomplish, also with the symptoms the "full dose" will cause, and lay particular stress upon the necessity for stopping the medication, when either the condition you are treating subsides or the effects of the drug become manifest. In cases of this kind leave what you know is a safe maximum dose with instructions to give some fractional part thereof every ten, thirty or sixty minutes till relief. If, when the medicine is gone, this has not been obtained it is time for you to call again. Where this cannot be done and it is necessary to leave larger quantities of powerful drugs add to your direction slip: "Stop if so and so (describing drug effects) occurs."

In many years of alkalometric practice I have never had an accident. I always give the first dose myself, explain carefully the results desired and why, never telling the remedy, and then, if it would be unwise to have the medicine continued beyond a certain point, I say: "If, when you have given three, six or twelve doses (as the case may be) there is still fever (or what not) stop and let me know."

Bear in mind when treating new patients the possibility of "idiosyncrasy" and if dispensing a drug which may prove objectionable, say, "Should you find that this medicine causes such and such a feeling, stop it and let me know." All these points will suggest themselves as experience comes, but it is just as well to start with a knowledge of the routine of those who succeed.

Never leave any large number of granules unless in a corked vial. Some drugs will gather moisture to an extent causing them to become soft and stick together. This is unavoidable, for should some excipient be added to prevent easy solubility the very effectiveness of the granule would be gone. In dispensing "tonics" and medicines of that kind give enough for a week or ten days and then renew the supply. You should see your patient that often anyhow.

Never charge for medicines, except when supplied in large quantities, but look out for your fees.

DOSAGE.

An important point and one at which many a beginner stumbles is "dose enough." Excepting the most potent and (in overdose) toxic alkaloids the rule is to give one, two or more granules every few moments or every hour or two hours "till effect." That means, *attain what you set out to get*. If you want emesis give three granules of apomorphine in hot solution every three minutes till you secure it. If you desire to produce a

sweat, give as many of pilocarpine, half-hourly till your patient perspires, or in emergency use the larger dose and the hypodermic, etc.

Fix in your mind the effect you wish to obtain with your medicines and give the minimum dose at proper intervals till you have secured it. Then, if it is desirable to maintain that condition give the full dose, or half, as may be best, every three or four hours.

In acute conditions give small, repeated doses; in chronic cases large doses three or four times daily and always "till effect"—in other words, till the patient shows improvement, or, by showing none, indicates the necessity for a change of remedies.

"CLEAN OUT AND KEEP CLEAN."

It would be impossible to give in the compass of an article of this character adequate instructions for every case and condition which will present itself. For such assistance the beginner must turn to the larger works on alkalometry; but be it remembered that in nearly all acute conditions it is imperatively necessary to "clean out and keep clean" the digestive tract. To do this give small doses of calomel and podophyllin (or leptandrin or euonymin)—say gr. 1-6 every half-hour for four or six doses. Follow the last dose with a saline to flush the bowel and then keep the *prima via* clean with the sulphocarbolates in five- to ten-grain doses, according to condition, every two or three hours.

For all fevers give this same treatment with aconitine; alone, if "simple," with veratrine if asthenic and with digitalin or strychnine (or both) if of the asthenic type.

In all acute diseases remember that it is necessary to support, not only the heart but the vital forces generally. Strychnine is our standby. If the heart merely wavers, cactin is probably the best remedy to add, but if there is a distinct cardiac involvement, then digitalin, strophanthin or sparteine will be called for. In all systemic invasions, having cleaned out and attended to intestinal sepsis, give nuclein. This remarkable remedy stimulates phagocytic activity and enables the leucocytes—the "soldiers of the system"—to destroy the invading germs.

Always attend with utmost care to every local condition. Do not expect any drug to accomplish an impossibility. In diphtheria destroy the membrane with H_2O_2 applied pure. Apply ichthyol to boils, but, at the same time, saturate your patients with calcium sulphide; build them up, too, with nuclein and the arsenates.

Have an especial care to diagnose closely; "dissect" your cases and, when you give a remedy, know just why you give it and what you expect to accomplish from its exhibition. The effect being obtained, see what else needs attention and attend to it, and

so, piece by piece, treating conditions, not theories, you will see one disease after another lose its terrors and every day will find you better equipped to battle with death for the lives which have been entrusted to your care.

WHAT "DOSE ENOUGH" MEANS: STRAIGHT TALK.

One of the greatest stumbling-blocks which the budding alkalometrist meets is the matter of "dosage." The oft-repeated maxim "dose enough" does not always convey to his mind just what it should. The first and most important attainment of the dosimetrist is to diagnose closely. In intelligent medication there is no treatment for a "disease." While we recognize the perfect propriety and convenience of calling any fixed grouping of symptoms by a certain fixed name it is not by any means proper or effective to attempt to lay down a definite treatment for the condition supposed to be expressed by that name. What we have to deal with primarily is the *person*—no two people are constituted alike; no two will present exactly the same symptoms—temperature, condition of bowels, pulse, etc., even though they all are afflicted with the same general group of symptoms. To illustrate: We know full well that one typhoid case will resemble another in its general features and that we shall have fever, an infected bowel and system, etc., but it certainly would be far from "intelligent medication" to give A the same drugs and dosage as B, because B got well on them. If, however, A happens to present the same morbid symptoms as B, then it is fair to presume that the same general treatment will be successful. But the dosage may have to be varied considerably. A may be a spare man who eats little, drinks nothing but water and smokes not at all. He may lead an active life and an hygienic one. B, on the contrary, may be fat, "of a full habit withal" and eat and drink of the good things to excess; he may be sedentary too, and generally unhygienic in his habits. Will the treatment be the same? Hardly! It may, in its main points, but certainly what will be "dose enough" in the *one case* will not be so in the other.

The alkalometrist will go to work with either patient and clear out the *prima via*, believing that the best way to attain asepsis of the bowel is to have an empty one. Remove the media on which bacteria thrive and you are likely to hit those remaining, a harder blow. Well, the thin, clean man will probably be "cleaned up" by six doses of calomel and podophyllin (gr. 1-6 each) given at half-hourly intervals and followed, two hours later, by a heaping teaspoonful of Saline Laxative. After this, the saline repeated once or twice daily will probably suffice to *keep* him clean. Of course, to maintain asepsis the sulphocarbolates will be given—

probably in his case five grains every three hours. The other gentleman will, however, only begin to "clean up" on this. The calomel and podophyllin will have to be repeated daily for perhaps three days and the sulphocarbols will need to be given in 10- or even 15-grain doses every two or three hours to obtain stools free from odor.

All this is merely to emphasize the fact that the dosimetrist gives his remedies to produce certain effects. He does not arise and state dictatorially, "it takes five grains of this to produce catharsis," even though he may be quite sure that such a dose *will* produce it. He knows in his inner soul that while it may take that amount to purge Tom, less than half will do the work for Jack and Billy. So he contents himself with giving the smaller dose and repeats it till he gets purgation in all three.

Sensible, after all, isn't it? And, when you come to deal with toxic drugs, eminently safe, too. Morphine has been known even to cause death in quite small dosage, but that doesn't necessarily make it "dangerous" ever to use it. Give a dose which you know cannot produce harm and then repeat it at proper intervals till you get the desired result or the patient exhibits signs of "sufficiency," or of being "intolerant" of the drug, and you are safe. "Intolerance," shown after a full physiologic dose, would be entirely too late.

Take aconitine. - This, perhaps, the most useful of all our drugs, has been for years considered "too dangerous to use." Why? Because the dose given was too large. All the "effect" was produced at once, and too often to excess. A certain dose was given to A and proved effective; the same given to B proved so "effective" that he died, proving (?) that aconitine was "too dangerous to use." And yet, to-day, thousands of alkalometrists are using it with the most beautiful results. Why? Because they do not use tinctures or fluid extracts of unknown strength, but small (but even so, effective) doses of the pure, active principle of *aconitum napellus*, giving each such dose at regular intervals until the fever reduces or the signs of "aconitine sufficiency" in that particular case are apparent. As there are exceptions to all rules," so there are cases (of "fever," say), which will not respond to aconitine; the alkalometrist will in such a case give the drug till its physiological effect is apparent, and then, realizing that he has encountered an exception, will stop its exhibition and try something else. Again, he gives some other alkaloid and, before two doses are taken the patient shows signs of "intolerance." The remedy is stopped and no harm is done. But what would have happened in this case if the old system had been followed? Any man who has practised ten years can answer that question.

In concluding this "straight talk" let us urge again that you drop from your mind all other ideas and stick to this one: Give "to effect," this meaning, *till relief of symptoms or evidences of drug sufficiency*. The more common remedies will, of course, be given always till they produce the result desired, there being practically no "overdose" possible. For rough guidance average recommended "dosage" is given. This always errs on the side of safety. Practically the dose is always the smallest one which experience has shown to "give results."

Don't imagine that you should give that dose and, results failing, stop there. Not all all! Three times that dose may be necessary. Go right along till you "get effect" and remember, that if you do not get the result you expect, it is just possible you have erred in diagnosis or selection of remedy and are expecting something impossible. Study drug effects and you will find that remedies properly given and in "dose enough" have a habit of doing about the same thing in all people. Medicine, understood, is more of "an exact science" than the old-style practitioner could imagine and alkalometry has made it so. Be exact, brother—and so, "scientific!" And give "dose enough."—*The Alkaloidal Clinic*.

THE USE OF MECHANICAL APPARATUS IN SURGICAL TREATMENT.

At a meeting of the Chelsea Clinical Society, London, held on November 15th, Dr. Vincent Dickinson in the chair, Mr. Noble Smith read a paper on the above subject and exhibited patients.

He divided the cases requiring mechanical apparatus into two classes, the inflammatory and the non-inflammatory; tuberculous disease of joints being typical of the former class, and deformity, arising from various paralyses and weakness, being instances of the latter class.

In the inflammatory conditions, as every surgeon was aware, absolute rest of the affected parts was imperative; in the other class, the surgeon's object should be to correct the deformity without interfering with the natural movements.

This was a completely different system from that pursued by mechanicians who were not surgeons, and it required the knowledge of physiology, as well as of mechanics, to cope with the peculiarities to be dealt with.

Mr. Noble Smith then proceeded to demonstrate the methods of treatment by apparatus as applied to caries of the spine and to lateral curvature. The principles of the apparatus in both kinds of cases involved (1) expansion of the thorax without any pres-

sure upon its anterior or lateral parts, (2) continuation downwards of the instrument to the seat in sitting, and (3) possibility of modification of the machine by the surgeon.

The principles of *application*, however, differed widely in the two kinds of cases. In the inflammatory cases—caries—the body of the patient was kept close to the apparatus previously adjusted to the proper position, whereas, in the non-inflammatory—sclerosis—the apparatus was so arranged that it favored movement, and only came into action when the patient for any reason inclined towards a bad position. Thus, as regards sclerosis, a principle was introduced totally different from that appertaining to any spinal instrument devised by a non-medical mechanician. This same principle could be similarly applied in the treatment of all deformities requiring apparatus, and in which no inflammatory disease existed.

PEROXIDE SOLUTIONS IN OTOLOGICAL PRACTICE.

BRUDER (*Revue Hebdomadaire de Laryngologie*), calls attention to the unpleasant results which have followed the careless use of peroxide solutions, or those of inferior and unreliable grade in otological practice, such as diffuse external otitis, cerebral symptoms, suppurative phlebitis in the lateral sinus, etc. In one case fatal cerebellar meningitis followed the use of impure peroxide. The meatus should be smeared with vaseline before any form of peroxide is used, and if unpleasant symptoms follow the peroxide should be discontinued. In case of cholesteatoma, especially in operations on the mastoid, with sinus phlebitis and extradural abscess, the remedy should be used with great caution. With these restrictions, the remedy can be profitably employed. The great point for consideration is the purity of the product, and ample evidence has shown that there are very few suitable peroxides on the American market. Dioxogen has the advantage of absolute purity with stability, found, probably, in no other peroxide, and in otological practice its use has been found not only efficient, but absolutely safe.—From *The Chicago Clinic and Pure Water Journal*, January, 1905.

New York Skin and Cancer Hospital.—The governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkley will give a special course of four lectures on the relation of diseases of the skin to internal disorders, in the Out-Patient Hall of the Hospital on Wednesday afternoons at 4.15 o'clock, commencing March 1st, 1905. The course will be free to the medical profession.—William C. Witter, Chairman of Executive Committee.

THE MEDICAL PROFESSION AS REPRESENTED IN THE NEW CABINET



HON. J. O. REAUME,
MINISTER OF PUBLIC WORKS.

Hon. Dr. Joseph O. Reaume of North Essex, the Commissioner of Public Works, is a French-Canadian of great personal popularity in the House. To his personal popularity in his own riding is due much of his success at the polls. His appointment, although the result to some extent of Mr. Whitney's pledge that if the Conservative party were returned to power a French-Canadian would be a member of the Cabinet, can be justified by the marked ability Dr. Reaume displays as a Parliamentarian and his amiable personality. A fluent speaker in English as well as French, he has always been able to hold the ear of the House. He was educated at Assumption College, Sandwich, Detroit Medical College and Trinity Medical College, Toronto.



HON. R. A. PYNE,
MINISTER OF EDUCATION.

Hon. Dr. Robert Allan Pyne, though his appointment as Minister of Education came somewhat as a surprise, has been closely identified with the management of educational institutions for years. He has been chairman of the Public School Board of Toronto and of the Free Library Board, and is Registrar of the College of Physicians and Surgeons of Ontario. He was born at Newmarket in 1855, and is of Irish descent. Dr. Pyne has been conspicuous more in party councils than on the floor of the House, and is looked upon as one of the most level-headed party leaders in Ontario. Personally enjoying great popularity, he is a member of the Masonic and Orange orders, and several fraternal societies. He is an Anglican in religion.

(Half-tone cuts by courtesy of "Saturday Night," Toronto.)



HON. W. A. WILLOUGHBY,
MINISTER WITHOUT PORTFOLIO.

Hon. Dr. William Armonson Willoughby of East Northumberland, the whip of the Conservative Opposition, and the confidant of Mr. Whitney in the dark days of Opposition, is one of the ministers without portfolio. Born in Simcoe County in 1844, he graduated as M.D. at Victoria College in 1867. For many years he was a member of the Town Council of Colborne, and of the School Board. In 1884 he was Warden of the united counties of Northumberland and Durham. He is Surgeon Lieutenant-Colonel in the militia. Elected first to the Ontario Legislature in 1886, he ran at a bye-election in 1888 and in the same year he was returned, and with the exception of the general election of 1898, was successful in all subsequent contests in that constituency. A strong party man, Dr. Willoughby is, however, extremely popular on both sides of the House. In religion he is an Anglican.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

Editor,

43 BLOOR STREET EAST, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Associate Professor of Clinical Surgery, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children; N. A. POWELL, M.D., C.M., Prof. of Medical Jurisprudence, Toronto University, Surgeon Toronto General Hospital, etc.

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W. A. YOUNG, M.D., L.R.C.P. Lond.,

MANAGING EDITOR,

145 COLLEGE STREET, TORONTO.

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NO. 3.

Editorials.

RECIPROCITY IN MEDICINE BETWEEN THE PROVINCES OF CANADA.

THE question of reciprocity between Canada and the rest of the British Empire received an incidental prominence, when Dr. Roddick, Dean of the Medical Faculty of McGill University, and representative of the St. Antoine division of Montreal, in-

troduced into the Canadian House of Commons, during the session of 1902, a bill providing for the establishment of a Dominion Medical Council. The contemplated Council, speaking broadly, was to have powers to appoint examiners, to hold examinations in medicine, and to grant licenses to practise medicine in all parts of the Dominion. As an additional advantage, its licentiates were to be privileged to practise in any portion of the British Empire, to serve as surgeons in the British army or navy, or to take medical positions in the civil service of the Empire.

It was, therefore, the intention of the framer of the bill to favor reciprocity between Canada and the British Empire. Were it otherwise, one could not understand why Canada should ask so much in the matter of medical privileges from the Mother Country and yet offer nothing in return.

The original bill provided, that when five or more of the provinces passed concurrent legislation approving of the bill, it would become law throughout the whole Dominion. An amendment was introduced, however, providing that all of the provinces must approve of the bill, instead of five of them, and it became law, with this amendment. Since then, Manitoba, Prince Edward Island, Nova Scotia, and the North-West Territories have passed the necessary legislation. New Brunswick and British Columbia are prepared, it is said, to pass it, as soon as Ontario does, and there is every reason to think there will be no objection to the Roddick Bill in Ontario. The only dissentient legislature is that of Quebec, principally as the outcome of the opposition of Laval University.

The chief objection of the authorities of Laval University to the Roddick Bill reposed on the fear they entertained that the Dominion Medical Council, which would have power to grant licenses in every province of Canada, would prove to be an extinguisher to Laval University by cutting away the supply of medical graduates. They feared that French-Canadian medical students would present themselves to pass the comparatively easy medical matriculation examination of McGill University, receive their subsequent medical training at that university and, after passing the license examination of the Dominion Medical Council,

practise in Quebec, or elsewhere, without taking a medical degree at Laval University.

Such fears do not seem to be well founded. As the Dominion Medical Council would not be a teaching body, students of medicine in Quebec would have to seek a medical school. As long as the medical teachers of Laval University are effective in work and method, they must attract and receive the adhesion of Canadian medical students, whose mother tongue is French. The influences of the home and the college would favor Laval University as a medical school, and we dare say that a large proportion of the medical teaching of Montreal and Quebec would be done by Laval University, if a Dominion Medical Council were to-day an accomplished fact.

The Dominion Medical Council would not grant a degree in medicine, so that if a licentiate of that body should want the title of M.D., he would have to apply to a university. What more natural for him than to present himself before the university in which he had received his medical training? The two tests of proficiency, the examination for the degree of M.D., and the examination for the license of the Dominion Medical Council, could be made within a short period of each other, and a candidate fit to pass the one could just as well pass the other.

There is an additional reason why Laval University should seek fresh fields and pastures new for her graduates in medicine, and should, therefore, favor the early establishment of the Dominion Medical Council. Emigration of the French-Canadian population from Quebec towards Ontario is steadily increasing, and already in several counties of this province the French-Canadian vote has to be reckoned with. A convincing proof of the status of the body politic of Ontario in the matter of race will be found in the fact that this year, the first time such a departure has been made in the politics of this province, a portfolio has been given to a French-Canadian in the newly-formed Cabinet of Ontario. If there is room in Ontario for the French-Canadian artizan, farmer, statesman, there is, also, room for the physician of that race, even though he may not have graduated in this province. It is surprising, that the authorities of Laval University cannot see the question of the unification of Canadian medical licenses in a light favorable to their own increased in-

fluence as a medical faculty, and also to the interests of their medical graduates. Why should they not endeavor to obtain for their medical graduates the right to practise in Ontario, or any other part of Canada? The simplest way to accomplish that object is for Laval University to help to lay the corner-stone of the Dominion Medical Council, which will also be the surest agency for producing reciprocity in medical licenses between the provinces of Canada.

J. J. C.

RECIPROCITY IN MEDICINE BETWEEN THE UNITED KINGDOM AND THE REST OF THE BRITISH EMPIRE.

Our readers may remember that during the Boer war surgeons of high standing and holding commissions in the Canadian militia volunteered for service in South Africa. A complete field hospital was also offered by Canada, and in both cases the War Office refused to accept such service, on the ground that it was contrary to the Medical Act of 1858 (British) to permit a surgeon on the colonial register and colonially trained to attend professionally to British troops.

To remove this difficulty from the path of Canadian surgeons who may wish to attend British troops, or to enable colonially-trained physicians to practise medicine in any portion of the British Empire a bill was introduced into the Imperial Parliament in 1903 by General Laurie. The main feature of this bill is an extension of the Medical Act of 1858 (British), and it provides that a "Doctor or Bachelor or Licentiate of Medicine or Master in Surgery of any university or medical school in the Empire, at which the curriculum of studies and the examinations required to be passed by undergraduates shall be accepted and recognized by the General Medical Council as equal in all respects to the requirements from students and candidates for degrees in the institutions shown in paragraphs one to eleven of Schedule A," shall be entitled to equal privileges with the latter. In brief, to particularize, if the above amendment were to become law, a graduate in medicine of McGill University, or of the University of Toronto, or a licentiate of the College of Physicians and Surgeons of Ontario would be entitled to practise medicine in the

United Kingdom, or any part of the British Empire, without passing a fresh examination or securing any qualification, other than the colonial one which he already possesses.

A letter received from Dr. Elliott, General Secretary of the Canadian Medical Association, informs us that General Laurie is desirous of reintroducing his bill at the present session of the British House of Commons, providing the Canadian profession desires it.

It goes without saying that the very liberal offer contained in General Laurie's bill would involve medical reciprocity. It would be an unheard-of piece of generosity for the British Parliament to extend the privilege of practising medicine in the United Kingdom, and other portions of the British Empire, to colonially-trained Canadian graduates in medicine, if the Parliament of Canada would not grant to British graduates in medicine the right to practise medicine in Canada. But the Parliament of Canada would not entertain such a proposal. It would be distinctly *ultra vires*; for, in Canada, all matters pertaining to education, by the terms of the Confederation Act, are left to the Provincial Legislatures. Hence the proposal to license British medical graduates in Canada, *en bloc*, without their conforming to the established Provincial tests, could not be entertained by the Canadian Parliament, unless all the Provincial Legislatures of the Dominion were to agree to forfeit their own rights in the matter and would unite in requesting the Canadian Parliament to provide reciprocal legislation in keeping with the natural outcome of General Laurie's bill.

As far as we have learned, there is no marked desire on the part of Canadian physicians to avail themselves of the advantages which would accrue to them if General Laurie's bill were to become law. It is true that Canadian applicants for medical positions in the Imperial army, navy, or civil service, would be benefited by the passing of the amendment; but a physician who has practised in Canada would be going far afield were he to transfer his Lares to the land of his fathers, and few there are who have made such a venture.

That British physicians would come to Canada, if the law permitted them to practise in this country without undergoing a fresh examination, is altogether likely. The older men might

not care to leave home and face new conditions in a strange land; but the younger men would quite naturally follow in the wake of their emigrating compatriots, especially if the medical bars were let down.

There are physicians enough and to spare in this "Canada of ours." From reliable statistics, which were published in this journal in November, 1902, it was found that in all Canada there was one physician to 991 persons. It is manifest, therefore, that Canadian physicians would lose by opening their field to outsiders. For the reasons given, we do not think that General Laurie's amendment is likely to be reintroduced into the British House of Commons.

J. J. C.

EDITORIAL NOTES.

Payment of Notification Fees.—In reference to the British Infectious Disease Notification Act, 1889, the *British Medical Journal* (December 17th, 1904, p. 1673), says: "The authority is required to pay for each certificate and there is no legal obligation upon a medical man to send the authority a statement of fees apart from the certificates themselves, which under the Statute he is bound to furnish. The fees thus become due, as and when the certificates are received by the authority." In order to get over a difficulty which might arise if medical men insisted upon the immediate payment of each separate fee as it become due, the *British Medical Journal* suggests that the payment of fees due under the Infectious Disease (Notification) Acts be made periodically, without waiting for an account to be sent in by the medical man who notifies. This practice is said to prevail in nearly all large towns in England, and is growing in smaller districts. It is necessary to ask for a statement on the notification certificate indicating whether the person to whom the certificate refers is being treated by the practitioner as the medical officer of any public body or institution, in which case only a shilling fee is paid. The ordinary fee for a case in private practice, which is reported to the authority, is two shillings. We have already adverted to the practice which obtains in England of paying a small fee to a practitioner who gives notice to the authority of an infectious disease. The practice is just and

proper. The municipality in which the practitioner does his work is benefited by his report of an infectious disease, and ought to remunerate him for his trouble in giving notice to the sanitary authority. We have shown elsewhere that practitioners and hospital authorities in Ontario do not report cases of typhoid fever, although required to do so by the Ontario Medical Act. Is this negligence on their part due to the fact that there is no provision made in the Act for the payment of fees for notification, or is it due to another reason? Whatever the reason may be, physicians should discuss the question in the medical journals, or else instruct their representatives in the College of Physicians and Surgeons to discuss it in Council. At the present time there appears to be either a neglect of professional duty by physicians and the authorities of hospitals, or an unwarrantable assumption of authority on the part of the State in obliging physicians, under penalties, to work for the common good without remuneration.

Experiments of Metchnikoff and Roux on Syphilis.—In *Annales de l'Institut Pasteur* (1904, 25 Novembre, p. 657, 3ème memoire), Metchnikoff and Roux continue to give the results of their work on experimental syphilis in the chimpanzee, referring in this paper to the influence of different factors on the properties of the syphilitic virus. As the direct examination of the virus did not disclose the existence of a specific microbe, either in the products of inoculation or the lesions themselves, they determined, in the first place, whether or not the syphilitic virus would pass through a filter. The filtration of syphilitic virus (taken from an indurated human chancre) through a Berkfeld filter completely suppresses its activity. A control animal injected simultaneously with unfiltered syphilitic virus took syphilis. Klingmuller and Baermann, by experiments made on themselves, had already shown this action of the filter in stopping the passage of the syphilitic virus, but their experiments, for obvious reasons, were not repeated on other persons, and therefore lacked the element of completeness. The effect of heat on the syphilitic virus was then essayed. Heating to a temperature of 51 deg. C. (123 4-5 deg. F.) during an hour is sufficient to render the virus inactive. The addition of glycerine to it did not remove any of its pathogenic power. They then tried specimens of the syphilitic virus, made inactive through filtration or heat, as immunizing agents. These experi-

ments turned out negatively, and chimpanzees which had received injections of inactive products, took syphilis, when injected with the products of active human syphilitic chancres. They think that, to find a procedure for immunizing the chimpanzee against syphilis, it will be necessary to look elsewhere. From researches actively in progress, it appears to Metchnikoff and Roux, that they are more likely to succeed in their endeavors by passing syphilitic virus through the inferior catarrhines (*Sinniadae*), a species of monkeys which is more distantly related to the human race than the chimpanzees.

De Renzi's Opinions on the Treatment of Diabetes.—According to De Renzi (*Berlin Kl. Woch.*, November 14th, 1904) diabetes is especially produced by overfeeding, which causes arthritis, or a slowing of the nutritive processes. Hereditary arthritis also causes diabetes in individuals who are not given to overeating. Treatment should be dietetic and hygienic. In order to produce a complete glycolysis, the hydrocarbons have been eliminated from the diet of the diabetic patients. Cantani has pushed an exclusive meat diet to such an extent as to expose diabetic patients to the acid dyscrasia, with diabetic coma as a consequence. De Renzi advises diabetic patients to use green vegetables, the hydrolysis of which does not produce glucose but levulose (fruit-sugar), which is well borne by diabetic patients. For instance, if the glycosuria of a diabetic patient has been reduced to the normal level by the use of green vegetables, and he should take 25-100 grams of fruit-sugar, his glycosuria would not be increased thereby, which proves that the fruit-sugar has been completely consumed in his economy. De Renzi prescribes the following diet for diabetic patients: Five portions of green vegetables, 300 grams of meat, five eggs, and half a litre of wine, amounting in all to about 2,104 calories. Diabetic patients also take with advantage fruits which contain a considerable quantity of glucose in addition to levulose. De Renzi has not obtained from potatoes the same results as Mosse. He thinks this vegetable exercises an effect principally through the potash salts which it contains, and through its poverty in nutritive materials. Bodily exercise should be taken to increase the oxidation of tissue. Bicarbonate of sodium is the only medicament which seems to be useful.

The Action of the Rontgen Rays in a Case of Leucocythemia.

—The prognosis and treatment of leucocythemia are so unfavorable that any treatment which produces a curative result in this disease deserves the highest commendation, and should be circulated in the medical journals. A case of leucocythemia treated successfully by the Rontgen rays was reported to the Berlin Medical Society, November 23rd, 1904, by Dr. Grawitz. The patient, a man of fifty-four, was in a state of advanced cachexia when seen during the preceding month (October). The proportion of red and white blood cells was 1:1; the liver and spleen were considerably hypertrophied. After receiving twenty-three treatments by X-rays, the patient found that his general condition was vastly improved. The proportion of white blood cells fell almost to the normal standard, and the liver and spleen were notably diminished in volume.

Sulphur Baths in Lead Poisoning.—In the *Scottish Med. and Surg. Journal*, November, 1904, Dr. Theo. Ogg states that sulphur baths are most useful for all workers in lead, in order to procure the cleansing of the surface of the body from dust which adheres to it; sulphur baths may also be used as a vehicle for removing lead, which has already been absorbed and deposited in the tissues of the body. Lead may enter the body by the mouth, the respiratory organs and the skin. It enters principally by the mouth in the case of workmen who do not wash their hands before eating or who smoke during work, or who do not take the precautions of washing the mouth and brushing the teeth. Iodide of potassium eliminates lead from the body; this result is supposed to be produced by the formation of a soluble compound of lead in the tissues, which is eliminated by the kidneys. Some authors attribute to the iodide of potassium a tendency to produce acute symptoms and to intensify already existing symptoms, as a result of the action of the soluble salt of lead which penetrates into the blood. Sulphur baths, sulpho-alkaline baths, and the drinking of sulphur waters of all kinds act as useful adjuvants to the iodide of potassium. A sulphur bath at a temperature of 95 deg. F. and lasting for from half an hour to an hour, together with the injection of sulphur water into the bowel, diminish the risks of lead poisoning, which are due to the too rapid introduction of lead into the blood, without a corresponding elimination of

that poison. Sulphur waters, passing through the tissues, favor the formation of an insoluble sulphide of lead, which is finally excreted by the kidneys, the skin and the intestines. Hot baths, by promoting activity in the circulation of the skin, stimulate the secretions of the glands of the skin. Finally, sulphur waters, taken internally, contribute by their cholagogue and purgative effects to the elimination of lead by the bile and the intestinal fluids.

Phototherapy for the Relief of Pain.—Phototherapy seems to be destined to play a great part in the cure of various diseases, and particularly in the relief of pain. Dr. Rosenberg (*N. Y. Medical Record*, October 22nd, 1904) says that in acne and furunculosis the effect of phototherapy is rapid and certain. He thinks the blue, violet, and ultra-violet rays act almost specifically in the relief of pain. The ultra-violet rays obtained from the iron and carbon voltaic arc, with a high amperage, act as a specific remedy for acute muscular pains, such as lumbago, torticollis, and pleurodynia. In acute and chronic neuritis, these rays calm the pain and generally cure, especially in the acute forms. In rheumatic arthritis the results have not been encouraging, though German authors have published favorable results, a circumstance which may be accounted for by the limited number of their observations. In acute and chronic pleurisy, and in bronchitis, the ultra-violet rays have proved useful. In gonococcic peritonitis and in catarrhal inflammations of the posterior urethra, the results of treatment have been encouraging, and further trials should be made. Dr. Rosenberg thinks that ultra-violet rays may also prove useful in tubercular and gonorrheal arthritis, as well as for the relief of the pains of locomotor ataxia.

A Sign of Death.—An absolutely trustworthy proof of death, other than the commencement of decomposition, is something to be wished for, if for no other reason than to soothe the terrors of those persons who fear to be buried alive. Dr. Icard, Paris, has published a test which is worthy of trial. After the injection of a solution of fluorescein deeply into the cellular tissue, if circulation continues, jaundice of the skin and mucous membrane follows the absorption of that substance, whilst the eye becomes green, "like an emerald set in the orbit," to use the author's expression. If the circulation has completely stopped, nothing

of the kind is seen. Should none of the phenomena of coloration appear after the injection of fluorescein, it may be safely concluded that death has occurred. In time of epidemic, Dr. Teard thinks it would be expedient to make a subcutaneous injection of fluorescein at least two hours before a body is placed in the coffin. If the person is dead this causes no disfigurement; if he is alive only a transient discoloration is produced.

J. J. C.

PERSONAL.

DR. JAS. M. MACCALLUM, with Mrs. MacCallum, sailed for England on the 28th ult., and intend being absent for about eight weeks.

DR. WILLY MERCK, of the well-known firm, E. Merck, Darmstadt, Germany, has been honored by having conferred on him by the University of Halle-Wittenberg, for his merits in the field of materia medica, the degree of *Medicinae Doctor Honoris Causa*.

THE NURSE.

BY CHARLES P. CLEAVES.

I lay my hand on your aching brow,
Softly, so! And the pain grows still.
The moisture clings to my soothing palm,
And you sleep because I will.

You forget I am here? 'Tis the darkness hides.
I am always here, and your needs I know.
I tide you over the long, long night
To the shores of the morning glow.

So God's hand touches the aching soul,
Softly, so! And the pain grows still.
All grief and woe from the soul He draws,
And we rest because He wills.

We forget,—and yet He is always here!
He knows our needs and He heeds our sighs,
No night so long but He soothes and stills
Till the dawn-light rims the skies.

—From *The Outlook*.

❧ News of the Month. ❧

FIRST QUARTERLY MEETING OF THE PROVINCIAL BOARD OF HEALTH OF ONTARIO.

THE first quarterly meeting of the Provincial Board of Health of Ontario was held Feb. 1st 1905, at the office of the Secretary of the Board, Parliament Buildings, the first session beginning at 2.30 p.m. The following members were present: Dr. Kitchen, Chairman; Dr. Hodgetts, Secretary; Dr. Cassidy, Dr. Oldright, Dr. Douglas, Dr. Boucher, and Dr. Thompson.

After the minutes of the preceding quarterly meeting, held on November 10th, 11th, and 12th, 1904, had been read and adopted, communications were read:

(a) Letter from Dr. Hamilton, Port Arthur, asking for the appointment of Dr. McCartney as bacteriologist for that town and district.

(b) Letter from the Board of Health of Boston, Mass., announcing that a man who had been handling hides brought from Argentina to Boston on the barque *Penobscot*, had subsequently developed anthrax. Hides taken from the same shipment had been sent to different places in Ontario, notice being given to Dr. Hodgetts.

(c) Letter from Dr. Elliott, Secretary Canadian Medical Association, conveying a resolution of that Association adopted at the Vancouver meeting held in August, 1904, in which the practice of giving notification of tuberculosis was endorsed.

(d) Letter referring to the water supply of Ingersoll. (Samples to be sent to the laboratory.)

(e) Letter in reference to the water supply of Burke's Falls. It transpired that this supply had never been approved of by the Board.

(f) Letter referring to the sewage of Brantford. (Samples of the sewage are to be examined at the laboratory.)

Dr. Kitchen, Chairman, then read his annual address. He said that the past year had been a highly satisfactory one from a health point of view. The number of deaths from scarlet fever was 529 in 1903, while last year it was 129. From smallpox there were only four deaths, and the two outbreaks cost but \$1,500 to suppress. From diphtheria the deaths were 438, compared with 478; measles 32, compared with 53; whooping cough showed

a decrease in deaths of 68. Typhoid fever was responsible for 397 deaths, compared with 298 in 1903.

The number of deaths from tuberculosis showed an increase from 2,072, in 1903, to 2,168 last year. But while the whole number of deaths from contagious diseases, minus tuberculosis, was 1,790, the number of deaths from tuberculosis alone was 2,168. The time had arrived when the disease should receive notification. This did not mean that the houses should be placarded, but the Secretary of the Board of Health should be notified, so that information and assistance might be given to the families. "I fear," the report added, "it is not generally known that the Act requires the local health authorities to provide physicians with blank forms whereon to report contagious diseases."

With regard to sewage disposal, the view was expressed that experimental sewage plants should be established in Toronto. The appointment of an inspector of sewage and water works systems should be considered.

On motion, the annual address of the Chairman was adopted and ordered to be printed in the sanitary journal of the Provincial Board of Health.

Moved by Dr. Boucher, seconded by Dr. Thompson: That the application for Dr. McCartney's appointment as bacteriologist at Port Arthur be not entertained, as it is the policy of the Board to support the appointment of County Medical Health Officers. Carried.

Dr. Oldright moved, seconded by Dr. Boucher, that the Committee on Epidemics report regulations respecting the notification of tuberculosis. Carried.

Dr. Hodgetts was instructed to reply to the resolution of the Canadian Medical Association, stating that the Board had already expressed a conviction in favor of the propriety of giving notification of tuberculosis.

The Board's bacteriologist, Dr. Amyot, in his report said that during the past year a number of patent medicines, foods, and beef extracts had been investigated. In the patent medicines a large amount of alcohol had been found, but the foods and beef extracts were freer from deleterious ingredients than was anticipated, although they often contained ingredients cheaper than the name implied.

The Chairman paid a tribute to the services rendered by Dr. Hodgetts, the Secretary of the Board, and his staff.

Dr. Hodgetts and Dr. Amyot presented an interesting report on the sewage testing station at Columbus, Ohio. The sum of \$46,000 was set aside for such a purpose, but it cost only \$20,000. The balance will be applied for the maintenance. There are seven tanks, holding 12,000 gallons each. Two are used as grit cham-

bers, in which the sewage remains for one and a half hours. Another tank is used as a "plain sedimentation" tank, in which the sewage remains for eight hours. Two other tanks were intended to be used for experimenting on the efficiency of chemical precipitation, but they were not so used, but one of them instead was converted into a septic tank. The station also contained filterers, contact beds, and sprinkling filterers. The experiments carried out proved most valuable.

Dr. Hodgetts read a report of the Committee on Sewage respecting an outbreak of typhoid fever at London, Ont. Action on the report was deferred until next day.

On February 2nd, 10.30 a.m., the Board met and resumed business. The Secretary read his quarterly report. It dealt with the usual mortality statistics, the necessity of the supervision of water supplies, the increase of consumption and the supply of anti-diphtheritic serum. Dr. Hodgetts, in urging that tuberculosis be placed on the list of notifiable diseases, said:

"If it had been found that 4,237 hogs, sheep or cattle, worth anywhere from \$2.50 to \$100 each, had died in the province during 1903 and 1904 from a contagious disease, and that, in addition, many thousands more had become infected with that disease, and would ultimately die—all this to the direct financial loss of the farmer, and indirectly to the public loss—there would be such a stir over the length and breadth of the province that the Minister of Agriculture would be forced to take immediate action."

The necessity for the adoption of a standard of anti-diphtheritic serum, as in the case of vaccine matter, was very fully dealt with in the report. The chief source of supply has been in the United States, but English firms have entered the market at greatly reduced rates. Dr. Hodgetts recommends the Board to carry on laboratory examinations of these products for the benefit of the public. The report was adopted.

A report by Dr. Amyot, giving a *résumé* of the work done by a British Royal Commission in the matter of the treating and disposing of sewage, showing the results obtained from the different methods of treatment in sewage on land, was read and was ordered to be published in the sanitary journal of the Board. Dr. Hodgetts then read a report on the water supply of the town of Simcoe, which was received. It was referred to the Committee on Water Supplies.

At the afternoon session it was decided that the next meeting of the Association of Medical Health Officers of Ontario should be held at Toronto, about the time when the meeting of the Ontario Medical Association takes place.

Dr. Cassidy asked a ruling from the Chairman as to the right

of lay and secular journals publishing reports presented to the Board prior to their publication in the quarterly sanitary journal of the Board. It was held that, as the Provincial Board of Health is a public body, papers and reports read at its meetings, and discussions taking place there become public property, and may be reported in secular or medical journals, before they appear in the *Sanitary Journal* of the Board.

Dr. R. W. Bell, Provincial Medical Inspector, reported on the outbreak of smallpox in Raleigh and Lorraine townships in December, and in the township of Hamner in November. The report on the lumber camps noted a decrease in the outbreaks, and the conviction that a strict enforcement of the sanitary regulations was no hardship to anyone. The report on the outbreak of typhoid in Chester village, near Toronto, was also submitted. Contamination of water supply was stated to be the cause.

The Board went into Committee of the Whole to consider a report on the outbreaks of typhoid fever at London and Port Stanley, which occurred last summer. The report, which was presented by the Secretary, showed, among other things, analyses of the water supply of London, and also analyses of the well water of Port Stanley. Sewage pollution was proved to have been present in the water supplies of both these places. The opinion expressed in the report was that the outbreak of typhoid fever in London could be traced to impurities in the London water supply, and also that the outbreaks of typhoid fever at Port Stanley could have been caused by impurities present in the wells of that village. The report was adopted, and the Secretary was instructed to inform the local authorities of London and Port Stanley, with a view to action being taken.

Dr. English appeared before the Board as a deputation from London to advocate the establishment of a laboratory in connection with the Western University for the purposes of the western part of the Province. The Board has the matter under consideration.

The following committees were appointed:

Supervision of Water Supply, Sewerage, and Disposal of Sewage—Eastern: Drs. Douglas, Boucher and Oldright; Western: Drs. Cassidy, Thompson and Hodgetts.

Epidemics—Drs. Cassidy, Oldright and Hodgetts.

School Hygiene and Ventilation—Drs. Hodgetts, Oldright and Cassidy.

Legislation—Drs. Hodgetts, Boucher and Douglas.

Foods and Drinks—Drs. Douglas, Thompson and Boucher.

The Board got through business at 4.30, and afterwards inspected the room set apart in the basement for a sanitary museum.

DEATHS FOR DECEMBER, 1904.

THE returns from the Office of the Provincial Board of Health for the last month in 1904 are not quite so complete as in the same month in the previous year, and the deaths reported are less by 64. The total number of deaths from all causes, as reported by the municipal clerks, are 2,077, representing a population of 1,959,643, which gives a death rate of 12.7 per cent. per 1,000, and for the corresponding period of 1903, 2,141 deaths were returned from a population of 2,051,965, which gave a death rate of 12.5 per cent.

As may be seen by the comparative table smallpox, scarlet fever and diphtheria are less prevalent throughout the province, while measles, whooping cough, typhoid and consumption show an upward tendency.

COMPARATIVE TABLE.

	1904.		1903.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	2	0	13	0
Scarlet Fever.....	168	15	231	20
Diphtheria	437	65	474	72
Measles.....	125	7	14	1
Whooping Cough.....	45	4	8	4
Typhoid Fever	68	39	120	24
Consumption.....	166	159	148	148
Total	1011	289	1008	269

COURSE OF INSTRUCTION IN PUBLIC HEALTH.

THE authorities of the University of Pennsylvania realize the efforts which are being made in communities throughout the country to obtain officials who have had some special training in matters pertaining to public health. Each year the demands for men of this type (either as chiefs of departments or in some subordinate position) is increased, and at the present times there is a lack of men qualified to fill such positions. To meet the need of such instruction, the University will introduce into its curriculum, beginning October 1st, 1905, a course in public health, which will include instruction under the following headings:

THE COURSE WILL INCLUDE THE FOLLOWING SUBJECTS.

Sanitary Engineering.—Including the subject of water supplies, sewerage systems, street cleaning, disposal of waste, etc.

Sanitary Legislation.—A study of the movement for sanitary reform, and of the laws enacted relating to public health, and the

methods of enforcement employed in Great Britain and the United States.

Inspection of Meat, Milk and Other Animal Products.—The methods of preparation and preservation of the same, the conduct of dairies, creameries, etc., and demonstrations of the diseases of animals transmissible to man.

The Sanitary Engineering of Buildings.—Including demonstrations of systems of heating, ventilation, plumbing and drainage, the study of plans, etc.

Social and Vital Statistics in the United States.—An examination of statistical methods and their results, with special reference to vital statistics and to city populations.

Practical Methods Used in Sanitary Work.—Including water, air and milk analyses, studies in ventilation and heating, investigation of the soil, methods of disinfection, sterilization, etc. (This is purely laboratory instruction.)

General Hygiene.—As applied to the community, including lectures upon the causation of disease—exciting and predisposing, methods of prevention—including isolation, quarantine, natural and acquired immunity, protective inoculation, vaccination, and the antitoxic state, methods of house disinfection and the means employed, suggestions for the organization of sanitary work, the influence of water supplies and sewage disposal on the public health, etc.

Personal Hygiene.—Including the physiology of exercise, the adaptation of exercise to the various physical requirements, the use of exercise for the prevention and correction of deformities, the methods of examination and record keeping, the routine physical examination of growing children and the relation of air, food, bathing, etc., to health and development: the hygiene of the school room.

ITEMS OF INTEREST.

An Interesting and Convincing Letter.—A letter by Dr. J. Murray McFarlane, of Toronto, appearing on page xxxi. of this issue, is worthy of the consideration of medical practitioners.

An Ideal Tour in Europe.—The programme of summer tour in Europe of the Rev. Dr. Withrow, of Toronto, is a handsomely illustrated booklet. It will be sent free on application to him. This is his eighth tour. He has successfully conducted parties through the best tourist routes of Europe and also eight hundred miles up the Nile and through Palestine, Syria and Turkey. His European route is a favorite tour with the medical profession. He has had, we believe, as many as six doctors in one of his parties.

The Ontario Medical Association.—Dr. William Burt, President of the Ontario Medical Association, recently paid a visit to the city to review the work done by the two main committees in advancing the Association interests for the year. A considerable number of papers have been promised—these with the assurance of Dr. Ochsner's presence, already guaranteeing the success of the meeting. This will take place Tuesday, Wednesday and Thursday, the 6th, 7th and 8th of June, in the Medical Building, Queen's Park. The character of the work done by this parent Association of the Province warrants the attendance of every practitioner who can get to hear the papers presented.

Annual Gathering of the University of Toronto Club, New York.—Forty-five members of the University of Toronto Club of New York held their annual dinner at the Hotel Astor on Jan. 19th. Dr. A. R. Robinson acted as toast master, and after the toast "His Imperial Majesty, King Edward VII" had been drunk, "God Save the King" was sung. Then the toast "The President of the United States" was drunk, and was followed by the singing of "The Star Spangled Banner." The toast "Canada" was responded to by Prof. J. B. Galbraith, of the University; the toast "Alma Mater," by Prof. Alfred Baker, and the toast "Sister Universities," and the "University of Toronto Club," by W. T. Robson, of the Canadian Club, and James A. Meek, of McGill University.

A Dinner to be Given to Professor William Osler Next Month.—It is proposed to give a dinner to Professor Wm. Osler, of Baltimore, Md., recently appointed Regius Professor of Medicine at Oxford, some evening during the latter part of next month. It is expected that Dr. Osler will spend a week or so in Toronto towards the end of April, though the dates of his arrival and departure are not as yet definitely known. For that reason, the date of the dinner has not been settled, but will be almost at once. The committee are already besieged with applications for tickets, and it is expected that the banquet will be a huge success and our celebrated fellow Canadian given a hearty send-off to the Mother Land, where we know he will still further add to his laurels as a distinguished scientist, one heartily deserving of the honor conferred upon him by His Most Gracious Majesty.

Governor's Fellowship in Pathology, McGill University.—By the resignation of Dr. Oskar Klotz, this fellowship, instituted in 1899, has now become vacant. Dr. Klotz is a graduate of Toronto University, and has, during the tenure of his fellowship, done much valuable research work, including studies upon a bacillus isolated from water agglutinating with high dilutions

of typhoid serum, and on the isolation of a motile micrococcus causing an epizootic among rabbits, both published in the *Journal of Medical Research*, together with several studies in morbid anatomy. His most important work, shortly to be published, is on the part played by soaps in the process of pathological calcification. The fellowship is open to graduates in medicine who have done some previous medical research work, is tenable for two years, with a salary of \$500 per annum.

Dr. Osler's Successors.—Dr. Osler's successor is likely to be two men instead of one. It is said that Dr. Wm. H. Welch, President of Pathology, Johns Hopkins University, will take the chair of internal medicine in the university, and that Dr. Wm. S. Thayer will become professor of clinical medicine. Dr. Welch's successor in the chair of pathology is said to be Dr. Wm. T. Councilman, now of Harvard University. It was admitted, however, by President Ramon, of the Johns Hopkins University, that the name of Dr. Llewellyn F. Barker, of the University of Chicago, a Canadian graduate of the University of Toronto, would undoubtedly be considered in the choice of Dr. Welch's successor. Dr. Barker was on the house staff of the Toronto General Hospital in 1901-1902.

A New Physicians' Supply House for Toronto.—Mr. A. L. Massey, who some months ago resigned his connection with the firm of Chandler-Massey, Limited, of Toronto, has opened up in business for himself under the name of A. L. Massey & Co., at 61 to 65 Adelaide Street East, in this city. This firm are in a position to supply the physician or surgeon with anything they may require in their daily work from a static machine to a bandage, and have already secured some valuable sole agencies for the Dominion of Canada. They intend making a specialty of introducing new goods and pharmaceuticals to the attention of the profession, and wish physicians to understand that there is nothing too small for them to supply on an hour's notice, they having a special messenger service kept at their disposal. A. L. Massey & Co. do not intend at present opening up a large warehouse with unlimited stock on hand, but are desirous of conducting a business where, through the closest connections with all of the large houses in Canada, the United States and Europe, they are able to quote as low prices as can be obtained anywhere for none but the best goods. Their offices and sample room are very handsome, and we bespeak for the firm the confidence of the profession generally. A full announcement as to what they purpose doing will be found on page vi. of this issue.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

DR. CARVETH AND THE CHRISTIAN SCIENTISTS.--DR. CARVETH'S STATEMENT.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—I had thought my course of twenty years among the medical men of Toronto, in that time trying to work honestly and professionally, would have been sufficient to protect me against charges that have been brought against me in this connection, but some statements lately made concerning my dealings with the Christian Science people require explanation from me.

Some years ago the late John Kent, of McCaul Street, was under my care. After a time he left me to try Christian Science treatment. A day or two before death he became comatose, and his friends sent for me and Dr. McPhedran. After his death the case was reported to the Crown officers and an investigation was held. The whole matter came before the late Sir Thomas Galt, who, in dismissing the case, made the statement that a man may have whatever treatment he wishes when sick, and the law cannot interfere with him.

Since that time a large number of my patients have left me to try Christian Science treatment. Some of these and their friends still come to me when sick for medical treatment. My treatment of these patients is the same as given to all my other patients.

In August, 1901, I was called to Markham Street to see the child of Mr. Lewis. When I reached the house, I found the boy had been dead a short time. Upon examination, I suspected he died of diphtheria. I took a swab from the throat and, with Dr. Wilson, made a culture, which turned out to be diphtheria. Upon finding this out, I reported the case as diphtheria to the Health Officer and gave a certificate of death from diphtheria, not knowing at that time that I was doing anything but what the law requires.

In February, 1903, I attended Mr. Frazee, of Spadina Avenue. Some weeks after this I was called in to attend his child. I found the child suffering from a severe form of scarlet fever, which I reported at once to the Health Officer. The child died in two days and I gave a certificate of death from scarlet fever.

In the early part of January of this year I received a message to attend a young man named W. H. Goodfellow at 61½ Van-auley Street, the message stating that the young man was very sick and that his people did not know from what disease he was suffering. I went to the house and found the young man with a pulse of 130, respirations 65, with nostrils dilating, blue-white in color, bathed in perspiration and unconscious, dulness over lower parts of both lungs.

After some hesitation I consented to treat him. I prescribed for him and saw him again next day, when I found him in a dying condition. After leaving the house, his mother-in-law, living near, called me in from the street and explained to me that a medical man (Dr. Riordan) had been in attendance up to within eight days of that time, but that he had received no medical attendance during the last eight days. His diagnosis had been typhoid with lung complication. On the advice of this doctor, his mother-in-law had reported the full circumstances of the case to the Crown Attorney. Knowing that the Crown officers were apprised of the whole matter, I gave a certificate of death from pneumonia (my diagnosis at the time I saw the patient). I gave the certificate, explaining to the patient's brother that, as the case had already been reported to the Crown officers they would likely investigate and that the responsibility would not be upon me.

Feb. 11th, 1905.

G. H. CARVETH,
Cor. College and Huron Sts.,
Toronto.

THE MEDICAL INSPECTION OF SCHOOLS.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—The Provincial Board of Health adopted the following regulations, Feb. 13th, 1903:

"8. Whenever a case of diphtheria has occurred in a child attending any school, the Medical Health Officer shall personally, or through another physician, cause a daily examination to be made of all the children of the school room for at least one week from the date of occurrence of the last case amongst such children.

"If any children are absent from such school, a medical examination shall be made of them in the same manner as if they were in attendance at school."

In accordance with the above regulations, and at the request of Dr. Chas. Sheard, M. H. O. for Toronto, I inspected a large number of school children during the winter of 1903—' plan adopted was to visit any class room where a case of diph-

theria had occurred, get a list of absentees, and ascertain the cause of absence. If the absentee was ill and a physician was in attendance, his statement as to the cause of absence was accepted. If illness existed and no physician was in attendance, an examination of the child was made to ascertain the nature of the illness, and a swab was taken if indicated.

Among many hundreds of cases enquired into, I do not recall one where contagious disease existed that was not being properly looked after. The teachers are exceedingly careful and have been very successful in excluding from attendance at school all suspicious cases. My own opinion is that our city being small compared with many United States and European cities, and our population of a much higher average physically, morally and intellectually, medical inspection of school children is not necessary to the same extent as in those cities. Something might be done to secure greater cleanliness in a few cases. There are, undoubtedly, a number of cases where children suffer through defects of sight or hearing and are thought to be dull. The present movement to supply larger playgrounds will be a great advantage.

Occasional teachers who have taught in many different rooms in the city say that much might be done to improve the heating and ventilation in many instances. Medical inspection of schools should for the present be entirely at the discretion of the Medical Health Officer. The daily visit of a medical inspector to every school, as is the rule in some cities, is apparently unnecessary. In the case of country schools there is practically no need of medical inspection in Ontario. During seven years spent in teaching in three rural schools, no cases occurred of contagious disease that could have been prevented by medical inspection. The most neglected part of country schools is the outdoor closets. In many cases these are entirely unfit for use, through faulty construction and neglect.

W. F. BRYANS, M.B.

The Physician's Library.

Clinical Hematology, a practical guide to the examination of the blood with reference to diagnosis. By JOHN C. DA COSTA, JR., M.D., Demonstrator of Clinical Medicine, Jefferson Medical College; Chief of Medical Clinic and Assistant Visiting Physician Jefferson Medical College Hospital; Hematologist German Hospital; Assistant Visiting Physician Philadelphia General Hospital; Fellow of the College of Physicians of Philadelphia. Second edition, revised and enlarged, containing nine full-page colored plates, three charts and 64 other illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1905.

It is three years since we revised edition No. 1 of this excellent work on Diseases of the Blood; but since that date considerable advance has been made in this particular line of study, so that the author wisely undertook to revise his book and thereby make it thoroughly modern. It is, for instance, only during the past year or two that it has been decided that pneumonia, scarlet fever and typhoid are bacteriemic in character. Blood examinations have now come to be part of the effort towards correct diagnosis, and hematology is a study that must be taken up by all who wish to follow scientific procedure. These advances have been gone into in detail by Dr. Da Costa, and his second edition we find to be full of practical matter, not only the specialist, but for the practitioner who wishes to be a successful worker. W. A. Y

A New Edition of Webster's International Dictionary. Printed from new plates throughout, and containing 25,000 added words, revised biographical dictionary and gazetteer of the world, prepared under the direct supervision of W. T. HARRIS, Ph.D., LL.D. Editor-in-Chief, NOAH PORTER, D.D., LL.D., late President of Yale College. Springfield, Mass.: G. & C. Merriam Co., publishers.

Webster's International Dictionary contains a dictionary of the English language and a supplement of 25,000 new words, which together constitute the best and most recent vocabulary of the English language, and, in addition, the following valuable features: Colored plates (8 pp.) giving recent and authoritative reproductions of flags and arms of various nations, state seals, yacht flags, pilot flags, etc. Memoir of Noah Webster. List of

authors quoted. Brief history of the English language by James Hadley, thoroughly revised by Prof. G. L. Kittredge, of Harvard. Indo-Germanic roots in English by Prof August Fick, Breslau, Germany. Guide to Pronunciation fully explaining the various English sounds and the simple Webster system of diacritical marks. To this is added a list of more than 1,400 words differently pronounced by leading orthoepists. Principles of Orthography with important rules for spelling, list of words variously spelled, reformed spelling, etc. Dictionary of Noted Fictitious Persons and Places often mentioned in literature. A valuable dictionary for any reader. Completely Revised Pronouncing Gazetteer of the world with over 25,000 titles, the figures for population and area agreeing with latest census reports. Completely Revised Pronouncing Biographical Dictionary containing names of over 10,000 noteworthy persons of ancient and modern times with nationality, occupation, dates of reigns, date of birth, death, etc. Pronouncing Vocabulary of Scripture Names. Pronouncing Vocabulary of Greek and Latin Names. Vocabulary of Christian Names with pronunciation, derivation, meaning, nicknames, etc. Quotations from Foreign Languages translated into English. Abbreviations and Contractions used in writing and printing. Arbitrary signs and a classified selection of illustrations.

Manual of Operative Surgery. By JOHN FAIRBAIRN BINNIE, A.M.; C.M., Prof. Surgery, Kansas City (Aberdeen) Medical College, Kansas City, Mo. With 559 illustrations. Philadelphia: P. Blakiston's Son & Co., Publishers.

This is a beautifully gotten up little book, full of excellent material, compiled in a concise form. It will make a handsome ornament to the library table, a ready help to the busy practitioner, and a useful guide to the student of medicine.

F. N. G. S.

Chirurgie Orthopedique. Par LE PROFESSEUR PAUL BERGER et LE DOCTEUR S. BANZET, Chef du laboratoire de Médecine opératoire à la Faculté de Médecine de Paris. Avec 489 figures dans le texte. Paris: G. Steinheil, Editeur, 2, Rue Casimir-Delavigne. 1904.

This is a work on orthopedic surgery of 624 large pages, printed on thick, royal paper, which serves well to bring out advantageously the 489 illustrations which serve to add much to the usefulness and clearness of the text.

The extent of the work undertaken is much less than we are now accustomed to expect in a systematic work on orthopedic surgery. It is limited to a consideration of the deformities of the

spine, trunk, neck and upper and lower extremities. There is no reference to the various tubercular affections of bones.

The discussion of the various deformities of the spine and trunk is very thorough, and a fitting prominence is given to developmental methods of treatment. A large variety of exercises is given, but they have reference largely to the passive side of the work. Unless more prominence be given to what may be described as the "pedagogical" aspect of the treatment, the best results cannot be attained. There is no reference to work in groups or classes, without which it is impossible to avail ourselves of the great educational advantages which result from a healthy emulation. The ideals to be reached in erectness of attitude and efficiency of function are greatly dependent upon the re-education of the patient, upon setting up higher standards and demonstrating the possibility of their attainment. The individual patient, working alone, soon finds the tasks monotonous, and fails to give the hearty co-operation which is essential to success in this field. The ability, tact and genius of the director of work in the orthopedic gymnastics are as much called into exercise as in the ordinary education of the schools. The highest success is attained only when the interest is aroused and sustained, cordial co-operation secured and the best capabilities of the individual patient are called out. These ends cannot be so well attained unless patients be given treatment in groups or classes.

It is surprising to find so brief a description given to the important deformity which is recognized as "congenital elevation of the scapula." Some acquaintance with the work done on this side of the water would have shown that considerable gain may result from operative treatment.

The writers are thoroughly schooled in European methods, and give much larger place to machine methods of mechanico-therapy than would be warranted by the use of such means in America.

As would be expected, the discussion of the important subject of "congenital dislocation of the hip" is very extensive and thorough. Due prominence is given to the various methods which have been employed, both by means of manipulation and operation. It has been now pretty well established that gain can result almost solely in those who are quite young, and that the percentage of perfect replacements in the end is not likely to be much higher than 10 per cent., while a considerable percentage of the remaining cases will have been benefited by the operation.

Regarding the methods of treatment for osseous deformities there is little to add. The general course of opinion in recent years has turned strongly in favor of osteotomy with immediate replacement.

The absence of an index, in the proper sense of the term, greatly militates against the success of this book. Where such a variety of topics is discussed there should be an opportunity to turn to them in alphabetical order, and thus save time in looking up any definite subject.

In the field covered by this work the authors have done extensive and thorough service. The numerous and efficient illustrations greatly aid the surgeon who wishes to refer to this as a work of reference.

B. E. M.

A Compend of the Practice of Medicine. By DANIEL E. HUGHES, M.D., late Chief Resident Physician, Philadelphia Hospital; late Physician-in-Chief, Insane Department, Philadelphia Hospital; formerly Demonstrator of Clinical Medicine in the Jefferson Medical College of Philadelphia, etc., etc. Seventh revised edition, edited, revised and in parts re-written, by SAMUEL HORTON BROWN, M.D., Assistant Dermatologist, Philadelphia Hospital; Assistant Dermatologist, University Hospital Dispensary, etc. Including section on Mental Diseases. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904. The price of this work is \$2.50 net.

We have read several chapters of this compendium of the practice of medicine, and find that, as far as can be expected in a book of its class, the subject matters are well put. Additional work, not usually found in such text-books, is added in the form of chapters on diseases of the skin and also on mental diseases.

In a future addition there will be room for more careful proof-reading, as faults of spelling are pretty numerous. The book is tastefully bound and has quite an attractive appearance.

J. J. C.

Wellcome's Photographic Exposure Record and Diary.—Some new features in the 1905 edition.

The monthly light tables hitherto printed amongst the diary pages are now transferred to a special section at the end of the book. They are so arranged that, in the book as sent out, the January light table faces the exposure calculator. As each month goes by its light table is removed like the leaves of a calendar, and the light table for the following month is in its place. Like all ingenious ideas, it is very simple, but the advantage secured is great. Opening the book at the end, a glance at the left hand page tells the light value for the time of year, day, hour and atmospheric condition, whilst a single turn of a single scale of the calculator on the right hand side settles what exposure to

give for any subject and with any plate. Calculating exposure with the aid of this guide was always an easy matter; now it is simplicity itself.

This improvement has made others possible in the book itself. The exposure record pages are now separated from the diary portion and more space is available for each record. A number of pages ruled for recording the exposures given when making bromide, carbon, platinum and other prints, also lantern slides from given negatives, will be a boon to careful workers, and should be the means of inducing many to adopt more systematic methods. This section follows the negative exposure records, after which come the diary and memoranda pages. Each section is divided by a colored inset, spaces are provided for indexing, and all pages are numbered. These features make reference to any section or any page very easy.

As usual, the article on exposure is the most important in the book. It is notable for two special features. In three small pages it gives complete instructions for using the calculator provided, whilst for those who really want to understand the reasons which underlie the method advocated, there follows as clear and concise an explanation of the factors governing correct exposure as can be desired.

A new feature is a page devoted to exposures in telephotography, which simplifies what many have regarded as a very difficult matter.

The speeds of all plates and films have been revised to date, and the list is certainly the most comprehensive issued, including, as it does, English, American and a number of continental plates and films.

The tables and instructions for time, tentative, stand and other methods of development, for toning, intensification, reduction, etc., remain, and serve to complete the value of this compact volume as a pocket encyclopedia of photography.

The notes on page 14 give full particulars of the illustrations included and a list of those who have previously contributed photographs to this work.

As usual, there are two editions, one for the Northern Hemisphere and one for the Southern Hemisphere and Tropics. Each edition is issued in two bindings: (1) a handsome red buffing grain, specially recommended for its wearing qualities, at 1s. 6d., and (2) the familiar art green canvas at 1s.

The book is stocked by photographic chemists and dealers, and also at the railway and other bookstalls. In event of difficulty in obtaining, the publishers, Burroughs, Wellcome & Co., will post copies on receipt of remittance to the value of the edition desired.

Diseases of the Liver, Gall-Bladder and Bile-Ducts. By H. D. ROLLESTON, A.M., M.D. (Cantab.), F.R.C.P., Physician to St. George's Hospital, London; formerly Examiner in Medicine at the University of Durham, England. Octavo volume of 794 pages, fully illustrated, including seven colored insert plates. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Canadian agents: J. A. Carveth & Co., 434 Yonge Street, Toronto. Cloth, \$6.00 net.

This is, in every way, an admirable treatise, and adds materially to Dr. Rolleston's high standing among the younger members of British medicine. The work is the fullest and best on the subject in the English language. Nothing is omitted, and every subject is discussed so clearly and in such good English that reading it is a pleasure. Many illustrative cases are quoted, and the unrivalled museums of the London hospitals are freely drawn on for illustrations of marked excellence, including several colored plates. The work can be unreservedly recommended to the profession generally. The publisher's part leaves nothing to be desired.

A. M.P.

How to Study Literature. By B. A. HEYDRICK, A.B. New York: Hinds, Noble & Eldridge, publishers.

The aim of this manual is to facilitate the appreciative study of literature as literature; to concentrate the attention upon the text itself, not upon editorial explanation or comment. It furnishes means by which the student can ascertain for himself the chief characteristics of the book studied. Not to present ready-made opinions for his acceptance, but to help him to see for himself and to judge for himself is the design throughout.

A Text-Book of Practical Therapeutics. With especial reference to the application of remedial measures to disease and their employment upon a rational basis. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; one-time Clinical Professor of Diseases of Children in the University of Pennsylvania; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London; author of "A Text-Book of Practical Diagnosis," etc. Tenth edition enlarged, thoroughly revised and largely re-written. Illustrated with 113 engravings and 4 colored plates. Philadelphia and New York: Lea Brothers & Co. 1904.

I have written a number of reviews of this work, and can only say, as I have said before, that it is one of the most useful

books in my library. In the preparation of this, the tenth edition, the author has endeavored to maintain its already established reputation as a text-book and has succeeded. The work is up-to-date and has no peer in its particular department. Anything more would be superfluous.

A. J. H.

The Doctor's Recreation Series. Fifth volume, entitled "The Doctor's Window," poems by the doctor, for the doctor, and about the doctor. Edited by IMA RUSSELLE WARREN, with an introduction by WM. PEPPER, M.D., LL.D. Chicago, Akron, O., and New York: The Saalfeld Publishing Co. 1904.

We do not know of any other volume in which poems and pieces of doggerel, written by medical men, have been brought together, except in this volume of the "Doctor's Recreation Series." Of course, consisting, as it does throughout, of verse, Volume V. will be found by many to be not just as interesting as those devoted to prose. There is no question, however, that many splendid poems are from the pens of doctors, *e.g.*, S. Weir Mitchell, Oliver Wendell Holmes, Wm. Henry Drummond, Edward Jenner, Samuel W. Kelley, and others, and that at least one of this series should be devoted to such writings is most acceptable.

The Physician's Pocket Account Book, by DR. J. J. TAYLOR, is a neat, compact, easily kept and strictly legal book, carried in the pocket, always with you, showing each person's account at a glance. All entries are made but once, on the day when the services are rendered, in plain legal language, and require no posting or further attention. Published by the author, 4105 Walnut Street, Philadelphia.

By always being able to show all inquirers the exact state of their accounts wherever you may meet them, showing date and nature of each transaction, you will save more than enough in one year to buy account books for a hundred years. Being simple and complete, it will save you much valuable time in keeping your accounts, and much needless worry as to their correctness.

Books that are irregularly or obscurely kept in signs or ciphers are not admissible in court as evidence. If the contracting party is dead, you are not allowed to explain the books, and hence you lose the entire account against his estate. If you use the Physician's Pocket Account Book, you can simply hand your book to the court and go about your daily calls, secure that your evidence is entirely competent.

In the case of *your own death*, a large part of your legacy consists of your accounts. In incomplete account books these amount to just what the people come forward voluntarily and

pay—practically nothing. Your family usually knows but little of the accounts and can prove still less.

In the Physician's Pocket Account Book, however, your widow or administrator has a clear record and complete proof, and can go ahead making collections as well as if you were living. This often forms a *splendid life insurance* for your family. Briefly, then, the advantages of this book are: 1st, easily kept—requiring about one-fourth the time of other styles; 2nd, simple and easily understood by all; 3rd, always up-to-date without posting; 4th, always with you to show any one his account when he wishes to pay; 5th, strictly legal and entirely admissible as evidence; 6th, no more expensive than other forms of books.

Show it to your lawyer or judge, and if he does not approve of it, send it back and get your money back.

The book contains obstetric, vaccination and death records and cash accounts. The book is $4\frac{1}{4} \times 6\frac{3}{4}$ inches, containing over 224 pages. Prices: bound in leather, \$1.00; also bound in manilla boards with separate leather case; price of case and two manilla books, \$2.00; subsequent manilla books to use in the case, 60 cents each, two for \$1.00, three for \$1.40; also large size for desk or office use, \$4.00. Address Dr. J. J. Taylor, author and publisher, 4105 Walnut Street, Philadelphia, Pa.

The Preparation and After Treatment of Section Cases. By W. J. STEWART MCKAY, M.B., M.Ch., B.Sc., Senior Surgeon to the Lewisham Hospital for Women and Children, Sydney; late Surgeon to the Benevolent Asylum Maternity Hospital, Sydney; Fellow of the British Gynecological Society and of the Obstetrical Society of London. London: Baillière, Tindall & Cox., 8 Henrietta Street, Covent Garden. 1905.

It is a fact, though seldom admitted, that there are far too many surgeons to-day who pay almost too much attention to the actual operation itself and too little to either the patient and his or her preparation for the operating table or their after treatment. How vastly important it is that such details should be carried out to the letter, and how much depends upon the manner in which they are attended to in order to ensure a perfect recovery, especially in abdominal operations. Dr. McKay in his book lays stress upon this in no uncertain voice, and his work is worthy of a place side by side with, and should be a companion volume to, the best works on abdominal surgery. It consists of a little over six hundred pages, in all fifty-four chapters, each one founded upon a very wide experience, first under Lawson Tait, and afterwards upon a great deal of work done in the principal continental clinics. The author lays stress upon the careful watching of all section cases after operation. He says that he always sees his

serious cases every six hours, until all danger is past, often remaining many hours at a time with his patient during a crisis. In this manner he rebukes that type of quick operator who is too frequently apt to leave a great part of the after treatment of a case to the nurse in charge. The work is intensely practical, and should receive the hearty endorsement of all surgeons who endeavor to secure good results.

W. A. Y.

Medical Electricity. A Practical Handbook for Students and Practitioners. By H. LEWIS JONES, M.A., M.D., Fellow of the Royal College of Physicians; Medical Officer in Charge of the Electrical Department in St. Bartholomew's Hospital, London; President of the British Electrotherapeutic Society; Honorary Fellow of the American Electrotherapeutic Association; Member of the Société Française d'Éléctrothérapie et de Radiologie. Fourth edition, with illustrations. Toronto: Chandler and Massey, Limited. London: H. K. Lewis, 136 Gower Street, W.C. 1904. Pp. xvi., 536. Illustrations, 180.

This standard work is too well known to require commendation. The author is an accepted authority on matters relating to electro-therapy, and in this latest edition of his deservedly popular book has carefully revised all his subject matter and added much of value. In view of the increased importance of the subject, or more correctly speaking, the ever increasing attention which is being attracted to it, no practitioner can afford to remain entirely ignorant of what is being accomplished by electricity in medicine and surgery. Such being the case, "*Medical Electricity*" should prove a most welcome addition to the busy practitioner's library, and it may equally be recommended to the perusal of students, on account of the clearness of its style, the multiplicity of its illustrations still further elucidating the text, and the general accuracy and excellence of its contents.

C. R. D.

The Medical Record Visiting List, or Physician's Diary for 1905. New, revised edition. New York: Wm. Wood & Co., Medical Publishers.

There are a few alterations in the "make-up" of this visiting list for the ensuing year, the most important being in the list of remedies and their maximum doses in both apothecaries and decimal system, and the indication of such as are official in the United States of America. Perhaps the most useful chapters in the table of contents are those dealing with "Solutions for Subcutaneous Injection," "Solutions in Water" for Atomization and Inhalation," and "Hints on the Writing of Wills."

A System of Practical Surgery. By Drs. E. VON BERGMANN, of Berlin, P. VON BRUNS, of Tübingen, and J. VON MİKULICZ, of Breslau. Edited by Wm. T. BULL, M.D., Professor of Surgery in the College of Physicians, New York. Vol. V. Philadelphia: Lea Bros. & Co.

It is, indeed, with much interest, and perhaps more profit, we have reviewed the fifth volume of this masterpiece of surgery. This volume deals with the "Surgery of the Pelvis and Genito-Urinary Organs." The general plan of the work and the arrangement of subjects bear the impress of skill and care. The chapters on diseases of the kidneys, ureter, bladder and prostate gland are especially clear and convincing. In fact, the entire volume is thoroughly up-to-date, and reflects the latest thought of the world's greatest workers in this field of surgery.

It is also refreshing, in this work, to be able to gather the golden grain of surgical truth without wasting time in wading through a waist-deep pile of worthless chaff. Not only will this surgery be found a very valuable guide to the young surgeon, but we confidently predict that its pages will early be soiled by the finger-marks of our brightest and busiest men. S. M. H.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by A. O. T. KELLY, A.M., M.D., Philadelphia, U.S.A., with the collaboration of Wm. Osler, M.D., Philadelphia; John H. Musser, M.D., Philadelphia; Jas. Stewart, M.D., Montreal; J. B. Murphy, M.D., Chicago; A. McPhedran, M.D., Toronto; Thos. M. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; Jas. J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris, and Richard Kretz, M.D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipzig, Brussels, and Carlsbad. Volume IV. 14th Series. Philadelphia and London: J. B. Lippincott Co. 1905.

We find that there are in all twenty-two contributors to this, the last of the fourteenth series of "International Clinics." We are pleased to notice the names of two Canadians, Dr. F. A. L. Lockhart, of McGill University, and our *confrere*, Dr. R. D. Rudolf, of Toronto. The latter contributes a very excellent

article of sixteen pages on "Functional Heart Murmurs: Their causation and Diagnosis," and the former a short but most scientific paper on "Post Climateric Hemorrhages: Their Cause and Treatment." Sir Dyce Duckworth, of St. Bartholomew's, devotes a few pages entitled "Remarks on the Incidence of Gout in the United States of America and in New Communities," and Prof. D. R. Brower, of Rush College, contributes a most interesting section of about fourteen pages on neurological subjects.

A Compend of the Diseases of the Eye and Refraction, Including Treatment and Surgery. By GEORGE M. GOULD, A.M., M.D., and WALTER L. PYLE, A.M., M.D. 3rd edition. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. Price \$1.00.

This little book has far outgrown the ordinary size and scope of a compend. This new edition is set in larger type than the last, but it is none too large at that. The small print permits of a wonderful amount of material being contained in its 294 pages. The authors themselves claim that additional emphasis has been given to points of practical value. This claim is not unfounded, for one is struck throughout the book with its practical character.

J. M.

A Treatise on Bright's Disease and Diabetes. With Especial Reference to Pathology and Therapeutics. By JAS. TYSON, M.D., Professor of Medicine in the University of Pennsylvania; one of the Physicians to the Pennsylvania Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Second edition, illustrated. Including a section on the Ocular Changes in Bright's Disease and in Diabetes, by GEORGE E. DE SCHWEINITZ, M.D., Professor of Ophthalmology in the University of Pennsylvania; Ophthalmic Surgeon to the Philadelphia Hospital; Ophthalmologist to the Orthopedic Hospital and Infirmary for Nervous Diseases, etc. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904.

It is now twenty-three years since the first edition of this excellent work was published, and we are glad that the author again took up his pen and has favored the profession with a revised edition, as it is but natural that twenty years or more has brought about many changes of opinion as to the two diseases dealt with. The volume has been almost entirely re-written, and for that reason appears in considerably larger form than before. The illustrations are mostly taken from original colored plates, of cases occurring in the author's own experience. The addition of twenty-

five pages or so by Dr. G. E. De Schweinitz, on the ocular manifestations of Bright's disease and diabetes, adds value to the book. The part that interested us most, and will interest the profession, is that dealing with diabetes, its pathology and etiology, a subject that has always been in an unsettled state, so that the author's views will be more than welcome.

A *Dictionary of New Medical Terms*, including upwards of 38,000 words and many useful tables, being a supplement to "An illustrated dictionary of medicine, biology and allied sciences." By GEORGE M. GOULD, A.M., M.D., author of "The Students' Medical Dictionary," "30,000 Medical Words Pronounced and Defined," "The Meaning and the Method of Life," "Borderland Studies," Editor of *American Medicine*, etc. Based upon recent scientific literature. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1905.

George M. Gould has come to be looked upon almost as the American authority on medical dictionary work, so that anything in that line bearing his name as author is accepted pretty much without criticism. This latest addition to his writings is one of the best from his pen, and forms a splendid supplementary volume to his regular medical dictionary, the two together so arming their possessor as to preclude the necessity of his referring to any other similar work for the spelling or meaning of medical terms. It contains in 571 pages a wealth of information and is, in fact, a "*multum in parvo*."

Annals of Surgery for December.—The December issue of the *Annals of Surgery* is a remarkable number and well sustains the verdict of a well-known professor of surgery in one of America's oldest medical schools, that the *Annals* has achieved an undisputed place as the leading exponent of surgery in the English language. This issue signalizes the close of the first twenty years of the publication of this journal, and the publishers have properly marked the event by issuing a Festschrift number, which is more than double the usual size, and which is unequalled for the value of its contents, the number and authority of its contributors, and the abundance and quality of its illustrations, many of which are in colors.

The first article is by Professor Orth, of the University of Berlin, on the Morphology of Carcinoma. The conclusion of this, the foremost authority in pathology of the day, that as yet there has been brought forward no proof of the parasitic origin of cancer, cannot fail to interest every thoughtful physician—the "*Bacillus Neoformans*," the latest Parisian novelty, to the judicious and the learned is a myth and a delusion.

Any word from Professor J. William White, on the Surgery of the Hypertrophied Prostate, is sure to command widespread attention. In a memoir with this title Dr. White reviews this most important subject up to date, and gives his mature judgment on the questions involved. Always conservative and open-minded he holds a true balance and gives to various procedures their respective real values.

In the third article, Mr. W. Watson Cheyne, of King's College Hospital, London, reports a rare case of double intussusception, which had its origin in a Meckel's diverticulum, thus adding another to the various abdominal crises to which this not infrequent error of development may give rise.

Professor J. Collins Warren, of Boston, presents an elaborate study of the operative treatment of cancer of the breast, based upon over one hundred cases. A series of beautiful plates illustrate clearly the operative methods whereby he has gained unusually favorable results.

Articles by Foxworthy, of Indianapolis; Brewer, of New York, and Nicoll, of Glasgow, present reflections and observations upon various phases of wounds and injuries, which are supplemented by a scholarly paper by Dyball, of Exeter, England, on Parotitis as a complication of certain abdominal injuries.

Alessandri, of Rome, Italy, adds a certain increased cosmopolitan flavor to this number by a study from Italian experience of the use of Divulsion in Esophageal Strictures. Warbasse, of Brooklyn, follows with a scholarly report upon a most remarkable and picturesque case of foreign bodies accumulated in the stomach, and giving rise to gastric tetany. The photograph of the articles removed by the successful gastrotomy in this case will provoke unusual astonishment.

Duodenal Ulcer is the subject of a paper by Mayo, of Minnesota. This is illustrated by exquisite plates and is deserving of a place as a classic on the subject.

A handsome colored plate showing Torsion of Entire Great Omentum illustrates a paper on that subject by Seudder, of Boston.

Hernia of the Bladder complicating Inguinal Hernia is the subject of a paper by Shepherd, of Montreal; Pelvic Connective-Tissue Dermoids are studied by Germain; Stone in the Lower Ureter is the theme of a paper by Fowler, of Washington, D.C., being really a study from the experience of the Johns Hopkins Hospital. An elaborate and very fully illustrated memoir on Undescended Testicle, from the records of the Massachusetts General Hospital, is furnished by Drs. Odione and Simmons, of Boston. A case of Hypernephroma of the Kidney is detailed by Dr. Francis S. Watson, of Boston, accompanied by colored plates of unusual delicacy and fidelity to nature.

In the Transactions of the New York Surgical Society a valuable and interesting series of clinical cases is presented, an excellent mirror of current metropolitan surgical work.

In an editorial article is given the origin of the *Annals of Surgery* and its growth into the place which it has secured in surgical literature, an article especially pertinent to the memorial character of this number of the journal.

Reviews of books, list of contributors and a volume index complete the book, a work alike creditable to the surgical profession, the editor and the publishers.

The Diseases of Society. (The Vice and Crime Problem.) By G. FRANK LYDSTON, M.D., Prof. of Criminal Anthropology, Chicago-Kent College of Law; Surgeon to St. Mary's and Samaritan Hospitals, etc. Philadelphia and London: J. B. Lippincott Co. 1904.

The author of this most interesting book is in a position to state his views with some authority, as for years he has been contributing most valued articles to the world of literature on subjects allied to "The Diseases of Society." Dr. Lydston is the author, among other essays, of "Nordau and His Critics," published in *Medicine*, 1895; "Criminology in its Sociologic Relations," which appeared in the transactions of the National Prison Reform Association, 1905; "Studies of Criminal Crania," and "Materialism vs. Sentiment in the Study of Crime."

As to this book, of course, many readers will claim that the ideas expressed are altogether too radical, while others will be hearty sympathizers. They are, however, but the results of actual observation. It will interest the profession especially, to read the three chapters entitled "Sexual Vice and Crime," and "The Treatment of Sexual Vice and Crime." The closing chapter, "The Therapeutics of Social Disease in General with Especial Reference to Crime," is very interesting, and contains many views that are new, but worthy of consideration.

Diseases of the Nose, Throat and Ear and their Accessory Cavities.

By SETH SCOTT BISHOP, M.D., D.C.L., LL.D., author of "The Ear and its Diseases"; Honorary President of the Faculty and Professor of Diseases of the Nose, Throat and Ear in the Illinois Medical College; Professor in the Chicago Post-Graduate Medical School and Hospital; Surgeon to the Post-Graduate Hospital and to the Illinois Hospital; Consulting Surgeon to the Mary Thompson Hospital, to the Illinois Masonic Orphans' Home, and to the Silver Cross Hospital of Joliet, etc. Third edition, thoroughly revised, rearranged

and enlarged. Illustrated with 94 colored lithographs and 230 additional illustrations. Royal octavo, 564 pages. Price, extra cloth, \$4.00, net; sheep or half-russia, \$5.00, net. Philadelphia: F. A. Davis Co., Publishers, 1914-16 Cherry Street.

During the past few years, such rapid advancement has been made in this department that frequent revisions of any work on diseases of the nose, throat and ear are essential, if the author desires to keep in the vanguard of medical literature. New remedies are almost daily introduced, methods of treatment suggested, and improved instruments and apparatus put forward, so that any volume is apt to become old and stale in a very short period of time. The author has added quite a lot of new material as well as illustrations, and condensed several chapters that are more or less unimportant, and has succeeded in making his third edition a thoroughly representative volume. The change in the title, we think, is a wise one.

Hand-Book of the Anatomy, and Diseases of the Eye and Ear. For Students and Practitioners. By D. B. ST. JOHN ROOSA, M.D., Professor of Diseases of the Eye and Ear in the New York Post-Graduate Medical School; and A. EDWARD DAVIS, A.M., M.D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School. Philadelphia: F. A. Davis & Co. 1904.

This little book sets forth in brief the present state of ophthalmology and otology. While brief, it is exact and reliable, yet the authors have not confined themselves to the established views in ophthalmic and aural practice, for those methods, as yet on trial, receive fair mention, and those which have been abandoned are given scanty or no attention.

Accidents and Emergencies. A Manual of the Treatment of Surgical and Medical Emergencies in the Absence of Physicians. By CHARLES W. DULLIS, M.D., Fellow of the College of Physicians of Philadelphia, and of the Academy of Surgery; Surgeon to the Rush Hospital; formerly Surgeon to the Outdoor Department of the University of Pennsylvania and of the Presbyterian Hospital in Philadelphia, and Assistant Surgeon, Second Regiment, N. G., Pa. Sixth edition, thoroughly revised and enlarged, with new illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1904. Price, net, \$1.00.

This work covers a large field in a small space. It not only treats of accidents such as fractures, wounds, etc., but conditions

of unconsciousness, fits, the effects of heat, cold and electricity, hemorrhage, domestic emergencies, supplies for emergencies, disinfectants, etc. It is written for the public and is intended as a "first aid."

The illustrations are good and give one an idea how to apply temporary splints in fractures so that the patient may be moved with the least inconvenience or pain, and the main arterial trunks are shown, with directions for the control of hemorrhage.

We think the book well suited for the use of the public, and can recommend it as a reliable and convenient guide in accidents and emergencies.

W. J. W.

The Treatment of Syphilis. By F. J. LAMBKIN, Lieut-Col. R.A.M.C.; Specialist at the Army Headquarters, India. London, Eng.: Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden.

We have read with great interest this little book, and can only receive the dictum of such an authority with the greatest respect.

Lieut.-Col. Lambkin, without hesitancy, regards mercury a specific in this disease, and prefers to administer it in the form of a cream of metallic mercury, in from $\frac{1}{2}$ gr. to 1 gr. dose intermuscularly.

He considers the iodide of potash a useful adjunct, but condemns the continued use of it as harmful in all cases. He permits its use only during alternate weeks, in doses of 5 grs. three times daily for milder manifestations of disease, and never higher than 60 grs. three times daily in grummatous and cerebral lesions.

His treatment of the subject is that of one speaking with authority, and certainly he speaks with conviction. His treatment is at variance with accepted methods in this country, but he has a right to dogmatize when we think of his position as "Official Specialist on Syphilis to the Army in India."

A. R. G.

Beauty through Hygiene. By EMMA E. WALKER, M.D., Member New York Academy of Medicine, etc. Illustrated. New York: A. S. Barnes & Co. 1904.

This small book points out "common-sense ways to health for girls." It takes up in twenty-three chapters such subjects as "Deep Breathing," "Exercise for Healthy Girls," "Corrective Exercises," "Care of the Skin," "Perspiration," "Bathing," "Massage or Passive Exercise," "Care of the Eyes, Nose and Ears," "Clothing," and "Digestion and Diet." It is "chuck full" of common-sense and should be in the hands of all young women who want to be healthy.

Hare's Practice of Medicine. A Text-Book of the Practice of Medicine for Students and Practitioners. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Royal Academy of Medicine in Belgium; of the Medical Society of London. Author of "A Text-Book of Practical Therapeutics," "A Text-Book of Practical Diagnosis," etc. In one very handsome volume of about 1,000 pages, with about 100 engravings and six full-page plates in colors and monochrome. Philadelphia and New York: Lea Brothers & Co., Publishers.

As the student of to-day is the physician of the future, and as the physician must always be a student, a single volume can be conceived as answering the requirements both of a text-book and work of reference. To produce such a volume the author has brought to bear his experience of twenty years of active hospital and private practice, during which period he has been constantly engaged in teaching the subjects of clinical medicine and therapeutics. This didactic work has enabled him to understand the difficulties which confront the student and to present the principles and data with the utmost clearness. The book has purposely been given a clinical character. For this reason illustrations and plates have been introduced wherever an important point could be made more clear than by verbal description.

By the Queen's Grace. A Novel. By VIRNA SHEARD, author of "A Maid of Many Moods," etc. Illustrated by J. E. McBurney. Toronto: William Briggs. 1904.

This attractive little story is Mrs. Sheard's latest offering to the novel-reading public. It is an attractively bound, nicely finished and illustrated production.

The story is centred round the historic London Bridge in the days of Good Queen Bess. The heroine is the beautiful daughter of a certain rogue, one Richard Davenport, who had at one time barely escaped the gallows "by the Queen's grace." He was a surly man, and schemed to use his daughter by marrying her to some of his low but wealthy associates. She, being high-spirited, rebels, and falls in love with a young noble.

As in all proper stories, the lovers had troubles. After attempting to drown herself in the Thames, she sought the protection of Queen Elizabeth, who had once, struck by the child's beauty, given her a token to guarantee her access to the royal presence at any time. The Queen received her and gave her a place at court, and at last, after a long wait of ten years, she meets her

noble lover again, and they are married, and the story happily concluded.

It is a pleasant little tale, and is refreshing reading for leisure hours.

W. J. W.

An Introduction to Dermatology. By NORMAN WALKER, M.D., Fellow of the Royal College of Physicians of Edinburgh; Assistant Physician for Diseases of the Skin to the Royal Infirmary, Edinburgh; editor of the *Scottish Medical and Surgical Journal*. With 49 full-page plates and 50 illustrations in the text. Third edition, revised and enlarged. Bristol: John Wright & Co.; London: Simpkin, Marshall, Hamilton, Kent & Co., Limited. 1904.

It is five years since Dr. Walker published the first edition of his book on Dermatology, and since that time he has revised it no less than twice. The third edition has been boiled down and a good deal of unnecessary material eliminated. To the volume, however, has been added a good deal of new material, considerable space being devoted to the treatment of many dermatological affections by the electric current and various forms of light treatment. The book is withal simple and practical.

Saunders' Question Compend: Essentials of Medical Chemistry, Organic and Inorganic. Containing also Questions of Medical Physics, Chemical Philosophy, Analytical Processes, Toxicology, etc. Prepared especially for Students of Medicine. By LAWRENCE WOLFF, M.D., formerly Demonstrator of Chemistry, Jefferson Medical College. Sixth edition, thoroughly revised by A. FERREE WITMER, Ph.D. Philadelphia, New York and London: W. B. Saunders & Co. 1904. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

These question compends are arranged in the form of questions and answers, and are intended, in the main, for use by medical students.

This little work has reached its sixth edition. It has been carefully revised, much new matter has been added, and it is well adapted to serve as an aid in the study of chemistry.

Blood-Pressure as Affecting Heart, Brain, Kidneys and General Circulation. A Practical Consideration of Theory and Treatment. By LOUIS FAUGERES BISHOP, A.M., M.D., Physician to the Lincoln Hospital, New York. New York: E. B. Treat & Co., 241 West Twenty-third Street. 1904. 12mo, cloth, \$1.00.

This little monograph deals with the clinical significance and meaning of changes in blood-pressure that may occur in various

pathological conditions. The alterations which give rise to low pressure and to high pressure, and the management of such conditions is fully discussed.

Emphasis is laid on the importance of treatment in the early stages of arterial degeneration. The last chapter deals with the estimation of blood-pressure and the use of the nitrites for its modification.

This is a useful and interesting little work, and no one will be disappointed who reads it. A. E.

Self-Propelled Vehicles. A Practical Treatise, with illustrations. By J. E. HOMANS, A.M., Svo, pp. 672, bound in black vellum, gilt top, gold titles. New York: Theo. Audel & Co., Educational Booksellers. Price, \$2.00.

This volume will be found most acceptable to those who have discarded the horse for the up-to-date "auto." This will apply more particularly to the novice, who understands little about steering, bearings, lubricators, and the operation and construction of the automobile. The book consists of about six hundred pages, and should be in the hands of any who desire to make a success as practical chauffeurs.

Refraction, and How to Refract. Including Sections on Optics, Retinoscopy, the Fitting of Spectacles and Eye-glasses. By JAMES THORINGTON, M.D., Professor of Diseases of the Eye in the Philadelphia Polyclinic. Third edition. Philadelphia: P. Blakiston's Son & Co. 1904.

As this book has really reached its fourth (not its third edition), it seems to meet a demand. It is well printed, well illustrated, but very prolix. Evidently intended for beginners, it has the fault—if fault it is—of overstriving after simplicity. Many methods are described, somewhat in detail, and then we are told that the method is not satisfactory. This may possibly save one the labor of investigating the procedure for one's self, but it is somewhat exasperating to the reader. J. M. M.

X-Rays: Their Employment in Cancer and Other Diseases. By RICHARD J. COWEN, L.R.C.S.I., L.R.C.P.I., etc., Member of the British Electrotherapeutic Association; author of "Electricity in Gynecology," "The Electrical Treatment of Mental Disorders," "What is Life?" etc., etc. London: Henry J. Glaiser, 57 Wigmore Street, Cavendish Square, W. 2s. 6d. net. 1904. Pp. 129. Illustrations 10.

This small volume is divided into eight chapters, which deal respectively with: I. The Focus Tube; II. Apparatus; III.

Hypertrichosis; IV. Lupus Vulgaris; V. Malignant Disease; VI. Skin Diseases; VII. The X-Ray and Fluorescence, and VIII. General Remarks. The book is gotten up in admirable style, but does not profess to go very deeply into the subject. It is chiefly of value as voicing the personal opinions of one who apparently has done much work in this field, and is very good as far as it goes.

C. R. D.

Diseases of the Ear. For Practitioners and Students of Medicine. By JAMES KENNEDY, M.D., Aural Surgeon, Glasgow Royal Infirmary. With fifty-four stereoscopic photographs, two colored plates, and many illustrations. Bristol: John Wright & Co. 1904.

Would that medical publishers would give us a few more triumphs of the printer's art such as this. The best of paper, good large print, beautiful illustrations, all add to the pleasure of reading a well-written book. To the functional testing of hearing, more space is given than in most text-books. The suppurative affections of the middle ear and their complications are dealt with most thoroughly. Not the least valuable section is that given up to the beautiful stereoscopic photographs. Along with the book goes an ingenious stereoscope, which enables one to appreciate these the more fully, for they make up a veritable atlas of the anatomy and diseases of the ear.

J. M.

The Social Secretary.—We have all heard more or less about the important young social secretary, who is especially in evidence in Washington circles, but it has remained for the clever writer who is discussing Washington affairs in the *Delineator* to give us an intimate knowledge of this very interesting product. "In regard to this secretaryship," she says in the February number, "it would almost seem as though a beneficent Providence had especially decreed that most American statesmen and officials who came to Washington should be of the self-made type, for no other reason than to insure a genteel occupation to well-bred, well-born, impecunious young women of blue-blooded families." And with reference to her qualifications—"She must be a sort of social Napoleon in petticoats. She must be of the elect, that is, of the cave-dweller class. She must have a rich and sure knowledge of Washington's customs, of its pitfalls and snares. She must be well-groomed, well-gowned. She must be possessed of some of the qualities of a Sherlock Holmes, for she must be mistress of all sorts of tricks for discovering the past, present, future, and, if need be, the hereafter of every person who comes within range of her patroness's eye. It is her duty to divide her patroness's list of friends and acquaintances into lots—job-lots, as it were—in

which the sheep are carefully separated from the goats. If there is any score to be paid off, or any snubbing to be done, she does it, not only on behalf of her patroness, but often in her own behalf. She must by no means commit any blunder, particularly that of mismating dinner-guests as one poor social coach did on one occasion, when she assigned, at table, an ambassador to a certain ambassadress whose government had just administered to the other's government a diplomatic snub, for all of which the social coach had to pay the piper. The position, therefore, cannot be regarded as a sinecure. And for all this that she has to do, and so effectively does in the majority of cases, it is not so lucrative a post as that of chef."

The Houseboat Book. The Log of a Cruise from Chicago to New Orleans. By WILLIAM F. WAUGH. Chicago: The Clinic Publishing Co. 1904.

This little work, as its name implies, is simply a diary of a houseboat trip in the fall and early winter from Chicago, down the Illinois and Mississippi rivers from Chicago to the Gulf. A full account is given of the preparations for the trip and the supplies required. Each day has its own little adventure, mishap or difficulty recorded, and to one contemplating such a trip will prove of interest. The trip was taken for a good rest and change, and to enable a patient to escape a Chicago winter. To a stranger to the district traversed, the only disappointment felt in reading the book is the lack of description of the country. There are some nice little wood cuts, which add interest to the work. We are glad to note the trip ended pleasantly and with much benefit to Dr. Waugh and his friends. W. J. W.

The Outlook.—The more notable among the articles in the February Magazine Number of *The Outlook*, in addition to its usual historical review of the week and editorial treatment of timely questions, are: "Who is Father Gopon?" by Madam Breshovsky, the woman Russian revolutionist; "The Sailor of the Great Lakes," by W. D. Hulbert, with many pictures from photographs by the author; "An American Cathedral Close," by Elbert F. Baldwin; "A Story of the Sea Islands," by A. W. Dimock; "Three Impressions of Theodore Thomas"; "Canoeing in Ottawa Waters," by Morgan A. Kent and Albert E. Kent; "Bokhara the Noble," by A. V. W. Jackson, and "The American Country House," by Katherine C. Budd, an American woman architect. All these articles, with the exception of the first, are very fully illustrated with original photographs and drawings. The number also contains an amusing story, "Nixie of the Neighborhood," by Agnes M. Daulton, and "The Church

of the Strong Men," an essay of quite unusual character, by Gerald Stanley Lee.

The New York World, thrice-a-week edition.—The Thrice-a-week *World* has made special arrangements for the year 1905. Its already great news service has been extended, and, as heretofore, it will report all important events promptly, accurately and impartially. An original and striking feature of the Thrice-a-week *World* in 1905 will be its serial publication of the strongest and best fiction that has ever appeared in the columns of any newspaper. The novels already arranged for, and which are by writers known throughout the world, are:

"Cardigan," by Robert W. Chambers. A brilliant romance of the opening days of the Revolution, depicting life on what was then the border in the State of New York. Scenes with the powerful tribes of the Six Nations, and a thrilling description of the Battle of Lexington. Contains a love story, told with great force and charm.

"Before the Dawn," by Joseph A. Altsheler. A powerful story of the Civil War, describing the last days of the Confederacy in Richmond, vividly depicting conditions as the world's greatest war was drawing to a close. Contains a strong love story, and the mighty struggle of Lee and Grant in the wilderness passes through its pages.

"The Reds of the Midi," by Felix Gras. A story of the French Revolution, the greatest event in the history of the modern world. A peasant boy who marches with the tremendous battalion of death, the Marseilles column, tells how they overthrew the French monarchy and achieved the conquest of Europe. The love story is of singular delicacy.

"The Cardinal's Rose," by Van Tassel Sutphen. This is the last touch in modernity. The hero wanders into a continuous performance in New York City. He sees a scene in a biograph which arouses his curiosity and which leads him into a remarkable series of adventures in a remote part of the world and to the winning of the hand of a princess.

"The Blazed Trail," by Stewart Edward White. Mr. White has opened an absolutely new field, and he is now, perhaps, the most famous of all the younger American writers. This is a story of the great north-western logging camps, and tells how the character of a powerful man of action was built up and how it was finally softened by the influence of a woman's love.

PAMPHLET RECEIVED.

Summary of the Annual Report of the Library Committee of the College of Physicians of Philadelphia for the year 1904.

The Canadian Journal of Medicine and Surgery

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MEDICINE AND SURGERY

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TORONTO, APRIL, 1905.

NO 4.

Original Contributions.

NIELS RYBERG FINSSEN—HIS LIFE AND WORK.*

BY CHARLES R. DICKSON, M.D., TORONTO.

Electrologist to Toronto General Hospital, Hospital for Sick Children, St. Michael's Hospital;
Fellow and ex-President of American Electro-Therapeutic Association, Member
of Canadian Institute, etc.

THE beneficial action of sunlight, both in maintaining health and in combating various diseases, has been recognized from time immemorial. The ancient Greeks anointed their bodies and exposed themselves to sunshine on the flat roofs of their houses, both for pleasure and health. The Romans also indulged in the sun-bath, frequently following it with cold sponging, according to Vestricius and Cicero. Later, they had special buildings, called solaria, in which they took the Heliosis or sun-bath. Herodotus, C. Aurelian, and Antyllus recommend sun-baths in diseases of the skin and other affections, and many of the writers of antiquity advise the use of the sun-bath as a curative agent.†

This early belief in the therapeutic value of the rays of the sun is well nigh universal. Natives of South and Central America and Mexico lie full length on their backs for hours in the blazing tropical sun, as a remedy for consumption, a method said to antedate the advent of the Spaniard.‡ And in China, Japan, Hayti, and Mexico, the injurious effects of sun-

* Revised Abstract of a paper read at meeting of Canadian Institute, Toronto, Jan. 28, 1905.

† Freund, "Radio-Therapy."

‡ Rogers, "Luco-Therapy."

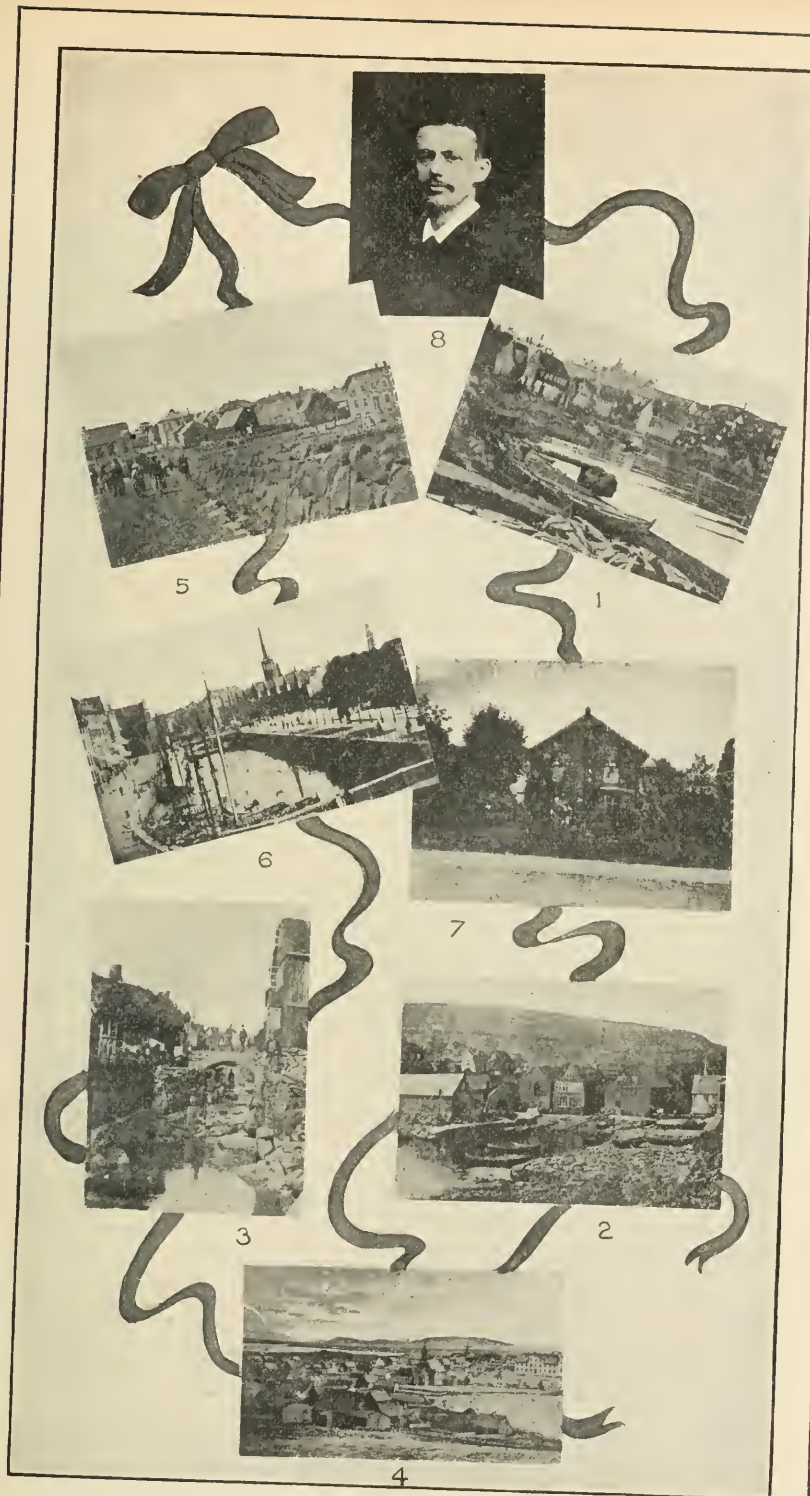
light in certain conditions are also known, so that while some patients are given sun-baths, others are kept from the light.

Systematic phototherapy dates from the beginning of the nineteenth century, when Professor Lobel, of Jena, set forth definitely the indications and contraindications for light treatment, and described a special apparatus for the purpose, since which time much has been accomplished in placing phototherapy upon a scientific basis.

But it remained for the immortal Finsen to gather the threads of evidence of the powerful influence of light upon health, to crystalize the discoveries of others, and to carry on his own ingenious, extended, and most strangely simple series of observations.

Born on the Faroe Islands, and living until his twenty-first year in Iceland, sunlight always had a great charm for him, and the sunless days depressed him greatly. Even as a boy he noted the action of the sun's rays upon certain animals. He spent eight years at the University of Copenhagen, in Denmark, graduating in 1890 as Doctor of Medicine, thirty years of age, but already a confirmed invalid since the age of twenty-three, with heart, liver and organs of digestion hopelessly affected, and active practice of his profession absolutely impossible. For three years after graduation he acted as Prosector of Anatomy under Professor Chiewitz at the university, and they still use there a dissecting knife invented by him. But, though handicapped so greatly bodily, he possessed keen powers of observation, the faculty of investigation highly developed, a rare intelligence, and an indomitable will, in spite of almost constant physical suffering.

Finsen was always keenly anxious to probe the mysteries of light, and from before the close of his student days had been experimenting with it. His first investigations dealt with the injurious action of the so-called chemical rays of light, of the blue, violet, and especially the ultra-violet parts of the spectrum, the most refrangible; where the chemical effect is at the maximum, the heating effect at the minimum; while at the other extremity of the spectrum the opposite phenomena obtain, the red and ultra-red rays being least refrangible, and the chemical effect at the minimum. In July, 1893, he had set forth some striking theories as to the action of light, and later, in 1894, he expounds and elaborates them, first drawing attention to the fact that "with the exception of the influence of light upon plants and upon the organ of vision, our knowledge of the physiological action of light and its effects, whether good or bad, is very limited." He considers the injurious influence of the chemical rays upon the animal organism, first, not because he regards this



1. Thorshavn, Stromo, Capital of the Faroes, from the Harbor, Government House.
2. South Harbor, Fish Stores, etc.
3. The Stream through Thorshavn.
4. Reykjavik, Capital of Iceland.
5. Business Quarter of Reykjavik.
6. Copenhagen, Capital of Denmark.
7. Finsen's Home, Copenhagen.
8. Niels Ryberg Finsen, "The Wolf-Slayer." Born Dec. 15th, 1860, at Thorshavn, Stromo, Faroe Islands. Died Sept. 24th, 1904, at Copenhagen, Denmark.

property as their only influence, but because it constitutes the very foundation of the subject.*

He notes that the deleterious or fatal influence of light upon the majority of bacteria is already known: that Duclaux, in 1885, had said that "sunlight is the best, cheapest, and most universally applicable bactericidal agent that we have;" that Downes and Blunt, in 1878, had shown that this effect was almost exclusively due to the chemical rays; that Graber, in 1883, found that earthworms in a box covered with strips of colored glass representing the colors of the spectrum, always crawled to the darkest places, viz., under the red glass, and Dubois, in 1890, had shown that the proteus was least comfortable in white light.

Brucke, in 1851, had explained that the chameleon changed its color by moving the pigment cells in its skin nearer to the surface, thus protecting itself against a disagreeable light impression; Paul Bert, in 1878, noted that while red and yellow light did not influence the pigment cells, blue and violet rays caused strong reaction, and in 1887 observed that if half of its body were illuminated through red glass and half through blue, that under the red remains a long time whitish, while that under the blue becomes blackish almost instantly.

Finsen had noticed that horses and horned cattle suffered from solar erythema, limited almost exclusively to non-pigmented parts of the skin. Wedding, in 1883, and Virchow later, observed that cattle and sheep fed on buckwheat are subject to vesicular cutaneous eruptions, more marked in the whiter animals and those exposed to light. Those kept in the dark were not affected, and a white cow coated on one side with tar, had the exanthem only on the opposite side. Livius Furst noted that in preparing animal vaccine, calves with a light skin were preferred, because pustules did not develop well upon those with a dark hide. Volkmann learned this practically in 1891, but did not explain it.

Unna, of Hamburg (1885); Widmark, of Stockholm (1889), and Hammer, of Stuttgart (1891) definitely demonstrated that the chemical rays, particularly the ultra-violet, are exclusively the cause of erythema solare, or eezema solare, and physiological pigmentation of parts of the skin exposed to light, explorers in polar regions and tourists on glaciers suffering severely from erythema caused by the reflection of sunlight by the ice, even with a temperature below zero.

Finsen regarded pigmentation as a protection from injurious action of the chemical rays, the coloring matter preventing them from penetrating too deeply, and proved this to his satisfaction. Painting a band of Indian ink around a part of his arm unac-

*Finsen, "Photo-Therapy."

customed to direct sunlight, he exposed it to a hot sun for about three hours. Removing the Indian ink disclosed a white band of normal skin, while that on either side was red, and later became inflamed, painful and swollen, remaining so several days, and finally becoming much pigmented, the white band remaining quite normal. On again exposing the arm without blackening it, the white zone became the seat of inflammation, while the pigmented parts were not affected except to become more pigmented. Oarsmen experience the protection of pigmentation. Furred animals, whales, reptiles, birds and fish are colored most on the side most exposed to the sun; fish require this protection because water, while it absorbs the red and ultra-red rays largely, allows the ultra-violet to pass freely. In plant life, pigmentation is also provided for protection against too much light.

The acute effects of chemical rays upon human skin vary from a feeble irritation to inflammation with epidermal desquamation, depending upon the intensity of the light, the proportion of chemical rays it contains, the duration of exposure, amount of pigmentation and thickness of epidermis. Ordinary lamps give proportionately less, and electric arc light more chemical rays than the sun.

The inflammation, unlike all other of similar duration, does not develop immediately, only attains its greatest intensity from twelve to twenty-four hours after exposure, develops only upon parts directly exposed to luminous rays, and leaves a pigmentation of the skin. It is thus unlike that caused by heat rays.

In smelting metals in an electrical furnace, men suffer severely from the effects of the light upon their skin and eyes. Widmark proved that this was due to the action of ultra-violet rays alone, and not to heat rays. As long ago as 1859, Charcot expressed the opinion that it was the chemical and not the heat rays that occasioned erythema solare, and that the dermatitis caused by a very strong electric light is identical with erythema solare, but it was not till 1889 that Widmark gave the scientific proof thereof.

An electric arc of twelve thousand candle power was used; by passing its light through a thick enough layer of water, the heat rays were absorbed, and by passing the light through a plate of common glass, the ultra-violet rays were absorbed and thus excluded. When the heat rays alone were excluded, skin subjected to the influence of the light developed the characteristic inflammation, but when only ultra-violet rays were excluded, the skin exposed to the light was unaffected.

Having considered the microscopic phenomena of light and the form of inflammation caused by a special irritant, Finsen turned to histological changes, to determine whether the inflam-

mation was simple or complex in character, and early in 1893 experimented with tadpoles. After ten to fifteen minutes' exposure to sunlight on the stage of the microscope, with precautions to exclude the effects of heat, the circulation in the capillaries, which were dilated, slowed, then ceased; leucocytes and red corpuscles escaped through the walls, as in simple inflammation, and the red corpuscles contracted, which demonstrated a direct action upon the capillaries and upon the blood itself; others had shown that light would cause living protoplasm to contract.

Pigmentation being nature's defence against the rays, from the location of the pigment cells, both in man and in animals, it would appear that the blood vessels and the blood need protection. The chemical influence of light is in direct proportion to the amount absorbed, and no living tissue absorbs so much light as does the blood, and especially violet rays. Other experiments showed that light had much influence on the nervous system.

He then considered acute diseases of the skin which the chemical rays might cause, and those which might be unfavorably influenced by the rays; for if they could produce a severe inflammation in healthy skin, they should injuriously influence a diseased skin.

In the midst of these experiments, Finsen found in the library of the university some articles alluding to the unfavorable action of light upon smallpox. One by Picton, of New Orleans (1832), mentioned that during an epidemic of smallpox, some soldiers confined in dark dungeons recovered without suppuration or pitting, but did not attempt an explanation. The English physicians, Black, Parlow and Waters (1867, 1871), had also published observations without attracting attention. Finsen thought that all these observations agreed with the fact that the parts most exposed to light, the face and hands, were the seats of the deepest and most confluent scars, and that the chemical rays had much to do with this, hence, in July, 1893, he proposed to treat smallpox patients in rooms from which the chemical rays had been excluded by filtering the light through thick red curtains.

Two months later, Dr. Lindholm, chief military physician in Bergen, Norway, and Dr. Svendsen, his assistant, made the first trial on eight patients, including four unvaccinated children, bad cases. The result was that the stage of suppuration did not appear, there was no elevation of temperature and no edema, and scars did not occur. These results were repeated by many other physicians, and where failure was reported, either some essential detail had been omitted, or treatment had been commenced too late. Finsen pointed out that any preceding successful methods for avoiding scarring had been based upon the exclusion of chemical rays,



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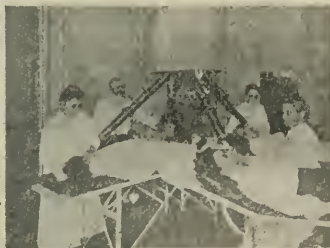
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9. Finsen ready for work. 10. Royalty at the new Lys-Institut at Rosenvaenget, Copenhagen. Main Room. Visit of Queen Alexandra, Dowager Empress of Russia, Crown Prince and Crown Princess of Denmark, April, 1903. 11. The first Finsen Lamp in England. Presented to London Hospital by Her Royal Highness Alexandra, Princess of Wales, completed May 29th, 1900. 12. The first large Finsen Lamp in America, at Chicago. 13. The original Arc Light Apparatus at the First Light Institute (showing the tubes with large glass lenses). 14. Treatment by Concentrated Sunlight at Copenhagen. 15. King Edward and Queen Alexandra at opening of new Finsen Light Room, London Hospital, June 11th, 1903.

without knowledge of the *rationale*, for instance, painting with iodine, or lunar caustic, or wearing a mask variously medicated.

Even red had been used in smallpox from early times. Thus, John of Gaddesden, who wrote the famous medical treatise, the earliest in the English language, "*Rosa Medicine*," and who died in 1361, treated the son of King Edward I. for smallpox by covering him with scarlet blankets and counterpane, placing scarlet hangings about his bed, gargling his throat with mulberry wine, and having him suck the juice of red pomegranates, the patient recovering without scarring. And in the time of Queen Elizabeth, red curtains, red coverlets, and red glass about the bed were highly vaunted in smallpox. Scarlet hangings and coverings were thus used early in the eighteenth century in France. Japan and Roumania have had similar notions for ages. In Tonkin the patient is placed in an alcove, and all light excluded by red hangings.

Finsen's plan involved as absolute protection from the chemical rays as the photographer accords his plates and paper. A candle was permitted while examining the patient, or while he was at his meals. Treatment should commence as soon as possible after the rash appeared—there was less hope after suppuration—and continue until all vesicles had dried up. It was not claimed that death would always be prevented, but that if taken in time and all rules observed, suppuration would rarely occur, and there would be no scars or very slight ones. In 1898, Finsen published an appendix to his paper on smallpox, showing the good results of many other observers.

Had Finsen accomplished nothing more, he would have merited the gratitude of the entire world and his name would ever have been honored, not alone for his actual achievement, but even more for the new avenues of research he had opened up. But a greater triumph yet was to reward his unassuming genius, for in 1895 he gave the world a paper which has been as a light in the darkness to many an afflicted, hopeless, despairing sufferer, a revelation of many a mystery in life's mystic volume, an interpretation of many a dream of the plodding, patient investigator, an inspiration and incentive to all co-workers in this most alluring field, the dawn of a brighter day. Hitherto he has dealt with light as an irritant, now he reveals to us "*Light as a Stimulant.*"

In observing the development of the eggs of the frog, and of the salamander, Finsen noted that movements of the embryos were increased by direct sunlight, and on experimenting with various colored lights found that violet rays produced the greatest effects. With salamanders an hour old, and others a day and a night old, a beam of light reflected upon the dish containing them excited lively movements, which ceased when they reached a shady

spot. Red, yellow and green rays did not affect them, but blue provoked as rapid action as compound light. Tadpoles kept in the shade for some weeks became very lively when exposed to daylight when the water was changed. Tadpoles raised under red light became very excited when exposed to daylight, while those raised under blue light were quite indolent, being accustomed to the chemical rays, while the former were not; red filtering out the stimulating rays. Earthworms exposed to various colored lights were uncomfortable in and avoided blue light, but sought red; some worms that had met with an accident and were weak, were revived by exposure to sunlight. Earwigs, woodlice, and beetles were much agitated under blue light, but quiet under red. All these dislike light, because the chemical rays excite them, but what of those which like it?

Butterflies were exposed to direct sunshine in a box, half covered with red glass, and half with blue. All beat their wings violently at first, but those under the red light soon became quiet, while those under the blue moved incessantly. When the sun ceased, those in the blue light became quiet, and an hour later the majority were under the blue zone. Reversing the cover, the majority moved to the blue zone again; the experiment seeming to indicate their preference for the chemical ray, and the influence of these rays on their movements. Experiments with meat flies showed that the different colors did not influence them in daylight, but that flies like to sleep in places where the excitation of light is most feeble.

Finsen's conclusions were that the action of the chemical rays (blue-violet) on these animals, compared with that of the heat rays (red), and light rays (yellow), was very considerable, and might broadly be defined as an excitation of the nervous system, so pronounced as to provoke well-marked reflex actions (in the embryo), and in other cases very powerful and special reactions (in photophobic and etiolated animals); and that it could truly be said that these chemical rays were promoters of life and energy, and that their action was constant and of daily occurrence, and must be of great importance in the carrying on of vital functions. Rays charged with such energy, when absorbed by the body, must have this energy transformed in many ways, one being this excitation of the nervous system, which doubtless influences in a secondary manner all the vital functions. And if the chemical rays influence inferior animals so markedly, why not man?

So confident was Finsen of the correctness of his theoretical deductions that he unhesitatingly stated that he believed implicitly that in the future use would be made of this new therapeutic agent, and the proof experiment once made, it would be easy to carry it out practically under the form of light baths; and lastly,

to determine whether they were to be blue or violet, the variations in their strength and duration, and whether natural or artificial. He noted that light baths had been used in antiquity, and that General Pleasonton had, in 1877, published a book in Philadelphia, vaunting the influence of blue light in cultivating plants, raising animals, arresting disease, and restoring health in acute and chronic disorders to man and animals. But while Pleasonton "approached the truth," his experiments were faulty and he was too apt to look upon blue light as a panacea.

Finsen cites, as a final argument for light as a stimulant, the marked effect of a sudden change from a cloudy to a clear sky upon insects, reptiles, birds, and ourselves, and maintains that both his positive and negative experiments show that the chemical rays are chiefly responsible for this stimulating influence.

These researches were carried on in the spring and summer of 1894, and published in February, 1895, and represent but a very small portion of the observations Finsen was conducting, but being interrupted, was unable to continue; but in 1899 he published an appendix detailing experiments conducted in the spring of 1895, showing marked secondary effects of light upon the embryo of the frog, supplementing former results, and stamping the ultra-violet rays as the essential exciting cause of the action. These experiments proved that the effect of the chemical rays was only evident after a certain time, and might even attain its maximum after exposure to them had ceased, and suggested opportunities for new researches.

Some charlatans having, meanwhile, exploited incandescent light baths, pretending they were based upon his work, and otherwise using his name in an unwarranted and distasteful manner, Finsen drew attention to the fact that the influence of light as a bactericidal agent, its power to cause inflammation and pigmentation of the skin and its stimulating action all depend upon the chemical rays, of which the light from incandescent electric lamps contains less than ordinary diffuse daylight does, and that such baths simply promote perspiration by reason of the heat rays given off, while proper light baths are cold, and cause a marked effect upon the skin; recent researches had proved that the dilatation of the capillaries and blood vessels of the skin produced by light was not temporary, but of long duration, and on account of a more active blood supply, better nutrition of the skin is promoted, and greater functional activity. In Finsen's sunlight baths, patients walk naked in a courtyard, and to avoid perspiration, water is sprinkled about or drenched over the patients. In the electric light bath, patients lie naked on couches, in a room divided by radiating partitions; a couple of large arc lights of one hundred amperes are suspended about six feet from the floor in the middle

of the room, the temperature of which is kept so low that artificial heat is necessary.

But Finsen's greatest victory was yet to be won. There is a disease much more common in some lands than here, and formerly thought to be cancer; the laity called it "wolf-cancer," but it is due to the presence in the skin of the bacillus tuberculosis. Although it is not called cancer now, its old name sticks to it, and



16, 17. Cases of Lupus cured at Finsen's Lys-Institut, showing also increased growth of hair from effects of light stimulating the scalp.

it is still called "wolf," or lupus vulgaris, and well deserves the name, for it is a cruel, gnawing, wolfish thing, rarely conquered, except at cost of much scarring; attacking chiefly the face, going on, sparing nothing, rarely killing, but often disfiguring greatly, sometimes destroying the eyes or contracting the mouth.

In 1897 Finsen published his epoch-making paper, "The Treatment of Lupus Vulgaris by Concentrated Chemical Rays," having put it to a practical test for two years. Recalling the fact

that the powerful bactericidal influence of light is now fully recognized, and that theoretically its use should be beneficial in superficial skin diseases of bacterial origin, while practically it has been neglected here, Finsen determined to study the question from the beginning, and because the bactericidal action of light is slow, to concentrate it by mirrors or lenses, excluding the heat rays, the ultra-red, red, orange, and yellow, which would destroy the tissues by combustion while the more easily diverted rays above them are the active bactericides.

To first make sure that the bactericidal action of light was really proportional to the extent of concentration, he coated the insides of two flat flasks with gelatine-peptone, and sowed them with pure bouillon cultures of bacillus prodigiosus, or with Eberth's bacillus, or the anthrax bacillus; the outside of the flasks was covered with paper, black on the side next the glass, to prevent the light affecting the cultures so protected, and white on the outer side to avoid absorption of heat rays. Round openings were cut in the paper, and across the openings numbers were traced in Indian ink, indicating in minutes how long each opening was exposed to light. A couple of hours after sowing, one flask was exposed to direct sunlight, the other to concentrated sunlight, and then kept one or two days in the dark to allow the cultures to develop. The results were very plain, for "the numbers indicating the space of time in which the light had killed the bacilli were clearly marked on the culture by the colonies which had developed in the shelter of the parts colored black. In this manner the bacteria themselves indicated the time of exposure necessary to kill them." Many similar experiments proved that sunlight concentrated by his apparatus killed microbes fifteen times more rapidly than direct light, and that the concentrated arc light was still more intense in its effects.

Finsen at first thought that the more blood in the part to be treated the better, because blood contained such a large proportion of oxygen, and oxygen is necessary to enable light to kill germs. But, placing a piece of photographic paper behind the lobe of his wife's ear, and projecting a cone of blue-violet light from his solar apparatus upon the other side of the ear, he found no change in the paper after five minutes; he then repeated the experiment, but pressed the blood out of the lobe by pieces of glass on each side, and the paper was blackened in twenty seconds, proving that blood prevented penetration of the rays, and so he devised glasses of different shapes to render parts anemic while being treated.

Finsen was now ready to try concentrated chemical rays in various bacterial dermatoses, especially lupus vulgaris, as it is caused by the tubercle bacillus, is local, and often superficial, and

light can not only kill the bacillus tuberculosis, but also stimulate nutrition and excite activity in granulation, assisting recovery.

His method varied according to the severity of the disease, and the tolerance of the tissues to light. An area of from one to three centimetres in diameter was exposed to the concentrated chemical rays daily, for several days or weeks, according to circumstances. Treatments lasted two hours at first; later, with improved apparatus, one hour. When one spot was sufficiently treated, another was attacked, until the whole affected area had been attended to; if any suspicious spots were left, they were then treated. Patients were examined after some months, and treated if necessary, until no more spots were found. Every patient had a nurse, who kept the spot in range of the rays, and saw that the rays fell perpendicularly upon the pressure glass. The immediate effect of treatment was to cause erythema, which was sometimes quite severe, depending on the intensity of the light, or idiosyncrasy; sometimes there was edema, rarely vesication, with the subsequent formation of crusts. When the parts had been sufficiently treated, the elevated margins became flat, redness disappeared, a normal appearance resulted, and ulceration, if present, cicatrized. Scars were insignificant. The effect of treatment continued after treatment was discontinued, sometimes for many months.

The apparatus first used was for concentrated sunlight, and consisted of a hollow plano-convex lens, twenty to forty centimetres in diameter, filled with water colored blue, to exclude heat rays; but, later, the coloring was omitted, as it excluded most of the useful ultra-violet rays, and plain distilled water was used, as water absorbs ultra-red rays largely, and they are the chief cause of the heat. The apparatus was on a stand, and could be readily adjusted, the rays of the sun were focused upon the part by it; the patients sat on chairs or lay on tables in the open air. But as the sun's rays were not always available, the voltaic arc was utilized through a contrivance like a telescope with four plano-convex lenses; two, near the source of light, caused the divergent rays of the arc to become parallel; the other two were arranged to make the parallel rays converge into a cone, which is directed upon the part being treated. Between the two latter lenses was a layer of distilled water, to cool the light, and outside was a blue solution light filter, which was discarded later. From thirty-five to fifty amperes was used, the apparatus was suspended from the ceiling, and to economize current four tubes were arranged about each arc at an angle of forty-five degrees, so that four patients could be treated simultaneously at each lamp.

In 1897 Finsen improved his apparatus, using an arc light of

eighty amperes, and lenses of rock crystal, permitting ultra-violet rays to pass, which are absorbed by ordinary glass, thus increasing the curative effect and the rapidity of treatment, so that a lupus the size of a pea disappeared completely after an exposure of from fifteen to twenty minutes. Unfortunately, such lenses are very expensive, and can only be obtained of small dimensions. Other improvements consisted in surrounding the proximal end of the tube with a cooling chamber through which cold water could circulate, discarding the pressure glass and substituting for it a hollow compressor of rock crystal, also constructed to permit a circulation through it of cold water, thus neutralizing the extra heating power of the increased current.

Finsen hoped to see the method still further improved, the disadvantages being the expense of apparatus, the time consumed at each treatment, and the protracted character of the treatment.

Finsen's first lupus case was of eight years' duration, during which time excision, curetting, escharotics, actual cautery, and other methods had been resorted to without avail. In the autumn of 1895, Finsen employed an ordinary arc light, converging its rays upon the part daily for one or two hours by a reading lens, filtering out the heat rays through a blue solution in a glass capsule, curing the patient in six months.

To carry on such treatment required capital, and two wealthy Danes soon came to Finsen's assistance, Mr. G. A. Hagemann and Mr. V. Jorgensen, and with their assistance the Light Institute was founded in Copenhagen in April, 1896. The Commune Hospital gave space in its grounds for some small buildings in which the experimental work went on more extensively, and the Institute achieved such results that the Danish Government granted a loan without interest, and the Institute removed to Rosenvaenget, a pleasant suburb, and was much enlarged; it contains laboratories and a clinic for phototherapy.

In the first six months only ten or twelve cases presented, and one nurse sufficed; but up to last September over two thousand patients from all parts of the world had been treated, with about ninety-eight per cent. of cures, and its staff had grown to six physicians and about sixty nurses. Its results are chronicled in a special publication in Danish and German.

Many attempts have been made to overcome the disadvantages of the original Finsen light, but although some of the contrivances are very ingenious, none can compare with the original, where deep penetration is required. Many of the substitutes give out rays much richer in ultra-violet than the original, and for superficial work are much more rapidly bactericidal, but all fall short of the original in penetration, lacking the less refrangible rays of lower velocity.

But this ingenuity has not been in vain, for with the smaller and cheaper apparatus a much wider field has been opened up in diseases due to bacteria, parasites and fungi, and not so deeply seated as lupus, and even some of the apparently hopeless cases of lupus of long standing are amenable to the ultra-violet rays of the iron electrode are.

Another outcome of the quest for a substitute was the employ-



18. The Funeral Procession leaving the Church. 19. King Christian of Denmark entering the Church. 20. The Lying-in-State.

ment of the X-rays, and the first successful use of the X-ray as a curative agent was in the treatment of lupus vulgaris; and the best treatment of to-day consists in the careful, discriminating use of these two agents as the main features; all else of value is merely secondary, which is one more debt we owe Finsen.

It was but natural that such a self-sacrificing student should attract about him kindred spirits, warmed by his enthusiasm, and fired with his ambition to know all. It was his privilege,

in part his reward, to surround himself with many such, and their combined labors merit naught but unstinted praise for the accuracy, clearness and exactitude of their observations.

What did the world of science think of Finsen during his lifetime? The most widely accepted authority on light-therapy, Dr. Leopold Freund, of Vienna, after chronicling a long list of honored names of those who had also labored in this alluring field, and setting forth all that they had accomplished, says: "None, however, has done such work for the furtherance of light-therapy as Finsen (from 1893 onwards). He first made careful experiments of his own, and tested thoroughly those of others, and then, having laid a sound theoretic basis, he constructed the apparatus by which he was able to prove the usefulness of light when applied in its most intense form to malignant growths such as lupus." And one who has done the most valuable work on this continent in light-therapy, Dr. Margaret A. Cleaves, of New York, in her recent splendid volume, "Light Energy," after alluding to the fact cited by Professor Freund, that similar apparatus to Finsen's had long been used for experimental work at the Vienna Institute for Practical Pathology, remarks, "All of which is illustrative of the fact that the means to the attainment of a definite end in all matters of scientific development lie at our door awaiting the interpretation of and application by the intuitive intelligence. Such is the order of the genius possessed by Finsen, and having proved by his experimental work the action of light, he was at once able to supply the needed apparatus for the utilization of the intense chemical frequencies of light energies from an electric arc."

It was Finsen's privilege to be appreciated by his confreres and the public ere he died, which was a great reward. He was the recipient of sincere praise and honor from most varied quarters.

The royal family of Denmark were interested in his work from the first, and thus Her Majesty Queen Alexandra, when Princess of Wales, and her sister the Dowager Empress of Russia, while visiting their father, King Christian, in Copenhagen, heard what was being done, and investigated matters for themselves at the Lys-institut, and soon physicians were sent from their respective countries to familiarize themselves with the technique. A Light Institute was shortly after opened in St. Petersburg, and the Princess of Wales presented a Finsen lamp to London Hospital in 1900; a second lamp was soon added, and later both were endowed in perpetuity, the amount necessary, \$100,000, being raised by Sir Alfred and Mrs. Harmsworth and Mr. Percy Tarbutt. With recent additions, twelve patients can now be treated at the same time. Charing Cross and Westminster Hospitals,

Liverpool, Manchester, Royal Hospital in Dublin, and others, soon installed Finsen lamps also.

And what of the man himself? Niels Ryberg Finsen was born on December 15th, 1860, at Thorshavn, the capital of the Faroe Islands, lying between Iceland and the Shetlands, and belonging to Denmark. His father was domain judge, and being descended from an old Icelandic family, Finsen's boyhood was passed at school in Reykjavik, the capital of Iceland, until his twenty-first year, when he entered the University of Copenhagen, in Denmark, remaining there for eight years, and graduating as Doctor of Medicine in 1890, aged thirty and a confirmed invalid, but already deep in the investigations which were to make him famous and which had begun in a small attic of the old Surgical College. To one who spoke of his work, he replied, with touching humility, that all that he had accomplished in his experiments with light and all that he had learned about its therapeutic value had come because he *needed* the light so much himself. He longed for it so. With heart and liver hopelessly diseased since twenty-three years of age, and then dropsy necessitating frequent tapplings, the strictest and most rigid discipline of diet was required of him. Yet this man, who knew the depths of suffering, would laugh at pain that would have rendered many another helpless, studied the diseases which he knew would kill him soon, watched their progress, contributed articles on them to the medical papers, and once remarked that he regretted his inability to be present at his own post-mortem examination. A few weeks before he died he sent a paper to the London *Lancet*, reaffirming his unshaken confidence in the therapeutic value of the red light treatment of small-pox, stating that some who had recently reported unfavorable results had not given the method a fair trial, all their patients being placed under treatment too late; this paper was published in November, 1904, after his death.

Finsen's home life was very happy, in spite of suffering; he was a devoted husband and father, and a staunch friend; his intense devotion to his work, his constant struggle against his physical condition with such rare courage, his unusual modesty and total absence of self-seeking, endeared him to all who came in contact with him. When the Nobel prize in medicine was awarded him in December, 1903, he wished to give the whole amount, 100,000 crowns (about £8,000), to the Light Institute. Finally his friends prevailed upon him to allow one-half to be placed at interest for the benefit of his family, for he was a poor man, the balance going to the Institute. His old friends, Hagemann and Jorgensen, comforted him by presenting the Institute with an additional 100,000 crowns.

On Saturday, September 24th, 1904, Finsen died. The

Copenhagen daily *Vort Land* said of him: "The universal judgment of him will sound like a universal thanksgiving—thanks from the land whose honored son he was, thanks from the scientific world for which he opened up new avenues of achievement, thanks from the unfortunates from whom he lifted the heavy burdens of disease. . . . More than twenty great sanatoriums, in as many cities throughout the world, stand to-day as lasting monuments to his fame. . . . A few days before his death he requested his physicians and friends to perform an autopsy on his body in order that, even in death, he might serve his profession. The dissection revealed the fact that he had been suffering from slow ossification of the heart membrane."

As in life, so in death, Finsen was honored. The whole two miles of his funeral procession was lined with respectful, silent crowds. The services at the Marble Church were attended by King Christian of Denmark, King George of Greece, Her Majesty Queen Alexandra and Princess Victoria, the Dowager Empress of Russia, the Crown Princess of Denmark, all the royalties in Copenhagen at the time. The royal families of Europe sent floral tributes, Her Majesty Queen Alexandra bringing one personally, while King Edward sent another from England. A deep impression was made when two hundred persons who had been cured of lupus by Finsen took their seats among the mourners.

In an admirable article on Professor Finsen, the *London Spectator* quoted thus most appropriately: "One passage out of the many fine passages in which Robert Louis Stevenson has written of life and death rises to the memory as a comment on the life of Professor Finsen. 'It is better to lose health like a spendthrift than to waste it like a miser. It is better to live and be done with it, than to die daily in the sick-room. By all means begin your folio; even if the doctor does not give you a year, even if he hesitates about a month, make one brave push and see what can be accomplished in a week. It is not only in finished undertakings that we ought to honor useful labor. A spirit goes out of a man who means execution, which outlives the most untimely ending. All who have meant good work with their whole hearts, have done good work, although they may die before they have the time to sign it. Every heart that has beat strong and cheerfully has left a hopeful impulse behind it in the world, and bettered the traditions of mankind.'"

SYPHILITIC GANGRENE.

BY R. B. EWAN, M.D., C.M. (McGILL), CHENTU, CHINA.

THAT syphilis is a fruitful source of arterial disease with its far-reaching and varied train of evils has long been recognized, but that it may be, and not infrequently is, a direct factor in producing gangrene of the integument and extremities, seems to have received but slight attention, judging from the spaces devoted to it in even such standard works as Allbutts' "System of Medicine," Erichsen's "Art of Surgery," and Cheyne and Burghard's "Manual of Surgery." The only account I have been able to find is in Taylor's "Venereal Diseases," 1895, Vol. II., page 744, who devotes less than two pages to "Gangrene and Gangrenous Ulcers." From this short article I make the following quotations:

"In some cases of syphilis, as a result of changes in the coats of arteries and veins, gangrene is produced, by which portions of the integument and extremities are destroyed. Until recent years all ulcerations occurring in syphilitic subjects were regarded as evidence of the breaking down of syphilitic infiltrations. To-day we clearly recognize the fact that spontaneous gangrene of the skin and its resulting ulcers may be due to syphilitic arteritis or to endarteritis obliterans.

"This degenerative condition usually begins in persons of poor nutrition, in those who are debilitated in consequence of bad regimen or excesses, in subjects who have not been properly treated and who live in squalor.

"The first evidence of syphilitic cutaneous gangrene is a mottling, with perhaps some scaling of the skin. The color then changes to a greenish-brown, and it finally becomes blackish-brown. In some cases this eschar is soft and succulent; in others it is tough, dry, and withered. In some cases there is local pain; in others a want of sensibility and coldness in the parts is complained of. Trauma, heat, cold, or caustic applications have nothing to do with these lesions."

Under the title "Primitive Gangrene," Fournier describes a syphilitic manifestation which Bazin called "tuberculo-gangrenous syphilide." He thus describes the morbid process: "The lesion as soon as it has been formed, takes a livid color in the centre and a chocolate color in the peripheral portions, with insensibility of the diseased part, for in reality the formation of

an eschar takes place, under which the mortified, insensible, sloughy tissues are found; no external occasional cause being recognizable. The mortified parts take on the appearance of gangrene; they become detached and underneath the syphilitic ulcer is found at last."

The author goes on to say that he has had several such cases under his care, and refers to cases reported by Podres, Lang, Cabot and Warren, Aune, Mendel, and Schuster, in which the upper and lower extremities were variously affected as well as localized and superficial areas of the integument. In Prof. Podres' case "microscopic examination showed inflammation of the external tunic of the arteries, degeneration of their endothelium, with thickening of their walls and obliteration of their calibre. There was also atrophy of the cutaneous nerves and glands. All of these changes were attributed by Podres to syphilis."

"Veins may be attacked by syphilis in much the same way that the arteries are, in both the secondary and tertiary stages. One or many veins may be attacked simultaneously or in succession. According to Mendel, the lesion is a gummatous deposit round the vessel."

The following cases, which have come under my notice during the past eighteen months, are offered as a small contribution to this subject:

CASE 1.—A man, forty-eight years of age, very little above the beggar class, came to the clinic complaining that twelve days previous, while carrying a piece of timber, he had stepped into a hole and snapped his patella. I cut down, using the large horse-shoe incision and flap. The tissues were found mottled and discolored, and the bone so friable that the wire had to be passed through the tendon below. The wound healed by first intention, and for the first few days the result was satisfactory, but at the second dressing signs of gangrene began to appear in the flap. The eschar, which was dry and quite superficial, when it separated, left an ulcer about two square inches in size, which refused to heal till brisk anti-syphilitic treatment was administered. The mixed treatment caused stomatitis and had to be suspended for a time, during which there was a circumscribed necrosis of the new bone thrown out around the wire, with superficial abscess, which had to be lanced, and later the wire was removed. He finally recovered with limited motion in the joint.

CASE 2.—A chair-bearer, twenty-nine years of age, walked or rather hobbled into clinic, suffering from a diffuse, suppurating aneurism, extending from upper border of popliteal space to within six inches of heel, which had come on suddenly ten

days before. I cut down and tied the artery just below the apex of Scarpa's triangle, evacuated the clots and drained. During the first thirty-six hours circulation was much impaired, but after forty-eight hours improved rapidly. Three days later a large spot of moist gangrene, involving the tissues down to the bone, appeared on the outer aspect of the leg; on the end of each toe there was also a spot of dry gangrene. The sloughs developed in what appeared to be perfectly healthy tissues, and certainly those on the toes were not due to pressure. He made a fairly rapid recovery under anti-syphilitic treatment.

CASE 3.—It was reported to me that a beggar was going around the streets with a pair of "black legs and feet like a Chinaman's dress boots," and a few days later he appeared at the hospital gate. He was suffering from symmetrical gangrene of feet and legs. The line of demarcation had formed slightly above the junction of the lower and middle third of each leg, and the bones at this point were quite bare for nearly an inch. The tissues were shrivelled, blackish, and almost dry, except in vicinity of line of separation.

The condition came on suddenly, following convalescence from an attack of fever. He had been exposed to cold while soldiering, but the possible effect of frost was excluded by the fact that he was in Szchuan several months before he was taken ill. Both legs were amputated just below the point of election, and the tissues, including the arteries, especially of one leg, were found friable and apparently of low vitality. He made a good recovery and grew fat on free anti-syphilitic treatment.

I have now in the hospital ward another case of diffuse popliteal (?) aneurism, extending from apex of Scarpa's triangle to within five inches of heel. The history pointed to a rupture of the artery forty days before he came to the hospital, and his leg was in a terrible condition; in fact, he seemed to be dying. On the inner aspect of the calf was a large livid spot two and a half by three inches, which he said had developed within four or five days, and which next day began to separate in the form of a slough, leaving a punched out ulcer, extending to, but not involving, the muscles. Owing to the late date of observation, I simply mention this case as being at least suggestive.

In conclusion, I would present the following summary as pointing to syphilitic gangrene:

1. With one exception the patients were young men, and were not, so far as could be detected, suffering from general atheroma.
2. In each case there was reasonable proof of syphilitic taint.
3. In each case the rupture or occlusion came on suddenly, and if this occurring in the brain points to syphilis, as is claimed

by some authorities, may not the same hold good for other parts of the body?

4. No apparent or sufficient cause. This applies specially to Cases 1 and 3.

5. The eschars in their development, color, separation, and the resulting ulcers closely resembled the description given by the author quoted.

6. The therapeutic test.

On account of space, I have confined myself to a bare outline of each case, but trust I have said sufficient to draw attention to an apparently frequently overlooked sequel to this extremely prevalent disease.—*The China Medical Missionary Journal.*

DIPHTHERIA COMPLICATED BY SUBCUTANEOUS EMPHYSEMA.

BY W. J. WILSON, M.D., TORONTO.

ALICE S., aged 10, always delicate, was taken ill with diphtheria Dec. 27th, 1904.

She was a mouth breather, and had suffered most of her life from adenoids and very large tonsils. Was called to see her Dec. 30th, and found a thick membrane covering the tonsils and extending downwards into the larynx and up through the nose. There was commencing laryngeal stenosis, and it was because of the croup that medical aid was sought.

She was given 2,000 units of Mulford's antitoxine between the scapulae, a tent was improvised, and 20 grains of calomel evaporated every three hours. In the interval between the calomel fumigations, the tent was kept filled with steam containing tr. benzoin co. and ol. eucalyptus. This fumigation was kept up for about two days, and the steam ten days.

On the third day after the antitoxine was administered the membrane had for the most part separated. A spray of hydrogen peroxide was used every two hours from the first. After the membrane had separated, it was re-formed to some extent. This was thought to be due to the irritation of the spray, and the peroxide was changed for a solution of boric acid and alum, with satisfactory results.

There was some swelling of the glands of the neck, especially on the right side. On Jan. 1st this glandular enlargement was distinctly less, but the neck in this situation was more swollen than before and a marked crackling sensation was felt on palpation. This emphysema extended up over the right side of the face and then appeared in the left upper eyelid. The right eyelids were not affected to more than a slight extent, neither was the lower lid on the left side. The arms and trunk became swollen to the depth of about one-half inch. The legs were not affected. Temperature at first visit was 100.8 F.; respiration 45 and pulse 96. This was the third day of illness. On the fourth day of illness temperature was 99 deg., pulse 108, respiration 48. Fifth day, on the morning of the appearance of the emphysema, temperature was 98 deg., pulse 100, respiration 40. Sixth day, pulse 112, temperature 99 deg., respiration 40 in the morning, but at 7.15 p.m. pulse was 112, temperature 103.2 deg. F., and respiration 52. This was the highest temperature reached during the illness, although on the eighth day of illness tempera-

ture reached 102 2-5 deg., pulse 140, and respiration 62. From this time onward for days the temperature ranged from 100 to 102 deg. F., and the pulse a little over the hundred. The respirations varied from 46 to 52 for about a week longer. Voice was only a whisper all this time.

During the greater part of the illness* there was a mild delirium, with at times a good deal of drowsiness. Patient took liquid nourishment with stimulants fairly well, and was given a mixture of iron and nux vomica. There was no albumin in the urine. The respirations remained rapid for about thirty days, when they came down to 18 to 22. The emphysema disappeared entirely about this time, having remained longest over the lower part of the abdomen and flanks.

In a swab from the throat Dr. Harold Parsons found a bacillus answering the description of the gas bacillus. In an anaerobic culture in agar, gas was produced in the depths of the media. Gas was also found to a slight extent in an inoculated rabbit. The rabbit, however, seemed to show rather good resisting powers against the germ.

Culture was not taken from the emphysematous tissue, as we did not wish to disturb the patient.

The appearance of the emphysema on the side of the neck, and not at the site of injection of the antitoxine, as also the finding of a gas-producing germ in the throat swab, would seem to free the antitoxine from the suspicion of infection from that source.

No efforts at intubation had been made, and patient had no violent coughing or straining likely to either produce a tear in the laryngeal mucosa or force respiratory air into the tissue. This, with the appearance of the gas in the left upper eye-lid without a perceptible spread across the face from the right side, the length of time the gas remained in the tissues, the finding of a large rod with a capsule in the swab, and the bacteriological findings, weigh strongly against the theory that ordinary air was the source of the emphysema.

Surgery.

IN CHARGE OF . . .

BRUCE L. RIORDAN, M.D., C.M.,
AND F. N. G. STARR, M.B.

NOTES ON LOCAL ANALGESIA.

BY ARTHUR E. BARKER, F.R.C.S.

Professor of Surgery, University College; Surgeon to University College Hospital, London.

MR. ARTHUR E. BARKER, F.R.C.S., in a recent *British Medical Journal*, gives some useful notes on local analgesia. He says:

To obtain the best results from the injection of B. eucaïne many facts have to be kept in memory, although this drug is the only local analgesia employed in the method under consideration. We have first the discovery by Corning, in America, and simultaneously (1885) by Feinberg, in Russia, that cocaine applied to the trunk of a sensory or mixed nerve abolished sensation throughout the whole distribution of the same. The practical significance of this last fact is still apparently not fully realized by many who try to carry out the procedure in question. Schleich, who undoubtedly did much to popularize local analgesia, gave it too little weight in his rather cumbersome procedure. But later Cushing gave it its full value in his very interesting observations. Of equal importance was the discovery of Oberst that if the circulation of a part was retarded by a ligature or the application of cold, the action of the analgesic compound injected into it was maintained and even intensified so long as the circulation was controlled or retarded.

Based upon these observations, the employment of local analgesia has grown considerably during the last few years and has improved in proportion to the full recognition of the importance of each. But its employment has been limited by two considerations. First, by the fear of the toxic effects of cocaine, which restricted the use of this drug to small quantities over comparatively narrow fields of operation, and, secondly, the relatively short analgesia in those parts of the body where Oberst's method of restraining the circulation by band could not be applied. But the discovery of B. eucaïne, which is far less dangerous than cocaine, while possessing analgesic properties little if at all inferior to it, has removed the first of these objections, while Braun's suggestion of the concurrent use of adrenalin for the purpose of securing a retardation of the circulation equivalent to Oberst's constriction of the part, has removed some of the objections both as to the duration of the analgesia, the extent of the area which can be dealt with, and the amount of the toxic drug to be employed.

It is now well known—Schafer, Moore, and others—that adrenalin possesses the property of constricting the smaller vessels of a part into which it is injected. Such a part is seen to be blanched and anemic, as though emptied of blood by constriction or cold. Now, when adrenalin combined with B eucaine is injected, several very notable effects are produced. By the retardation of the blood flow the eucaine remains in the area injected, and is not washed away at once by the blood stream into the general circulation. From this it follows that its effects on the nerves of the part are intensified and prolonged to a large extent, and, therefore, if combined with adrenalin, less of the drug is required to produce a full effect. Moreover, as it is thus retained in the tissues locally for a long time, often hours, it only reaches the circulation, and through it the higher nerve centres very slowly, if it ever reaches them at all in the form of B eucaine. For there is reason to believe (Braun) that before it is parted with by the local tissue elements it is altered in their protoplasm into other compounds innocuous to the nerve centres. At any rate, it has been found, experimentally, that a dose of cocaine capable of rapidly killing an animal if injected alone, is quite harmless if combined with adrenalin.

A knowledge of these facts enables us on the one hand to employ less of the drug when adrenalin is added, seeing that its analgesic action is thereby intensified, and on the other justifies us in increasing the area of injection, and, if necessary, the amount of eucaine, seeing that its general toxic effects are restrained or abolished. As a matter of fact, I have several times injected more than 6 grains of B eucaine, combined with adrenalin, in adults where large areas had to be dealt with, no ill effects being noted. Of course it is necessary to be very careful with a new drug, and I prefer to regard 6 grains as the maximum, especially as in practice it suffices for the largest operations. To utilize these data in clinical work we have to keep in view several questions.

1. How to reach on the proximal side of our area of operation the nerve branches supplying it, and how to saturate them as far as possible with the solution containing the drugs mentioned.

2. How far we can dilute the latter so as (without forfeiting their potency) to have enough of the medium to carry the active agents to all the parts required, even if extensive.

3. How to maintain the analgesia long enough for any ordinary operation without being obliged to infiltrate further, as in the older methods (Schleich).

1. The first of these questions is mainly an anatomical one, best met by considering the course and distribution of all the possible nerves which supply a part. There are, of course, gaps

in our knowledge of the ultimate distribution of many nerves, notably of those supplying the parietal peritoneum; but these are being steadily filled up by the anatomists (vide Ramstrom, Dogiel, Timofejew).

In reaching the nerves of a part hollow needles of varying length are thrust into their immediate neighborhood or across their course at some distance from the area of operation, and thus the fluid injected through them is carried as near to them as possible. We can also make use of fascial planes and areolar spaces, along which the fluid will pass easily. For instance, in removing the vermiform appendix in the stage of quiescence we have to deal with the skin, muscles, parietal peritoneum, and its reflexion to form the mesenterium of the vermiform appendix. To render the skin and areolar tissues insensitive is a simple matter. We have only to inject a somewhat larger area of these than we are likely to cut (— local analgesia). The muscles are not quite so easy to deal with. Here we enter a very long, blunt, hollow needle through the skin already infiltrated about two inches outside the line of incision at its lower end and push it slowly upwards between the layers of the muscles, injecting slowly as we go until we have nearly reached the costal margin and used 10 c. cm. of fluid. From the upper end, in the same line, the needle is now pushed downwards through the deeper layers as near the peritoneum as possible, using another 10 c.cm. We thus cross the line of the nerves supplying both muscles and peritoneum (Ramstrom). In some cases I have injected the subperitoneal tissues underneath the cecum and appendix, either from above the iliac crest or from below Poupart's ligament, just inside the anterior iliac spine. I had done this previously on the cadaver with blue injecting fluid, and been surprised at the way the fluid spread along the iliac fossa.

This is simply an illustration of how the nerves of a part can be reached ("regional analgesia"). For the groin no better guide can be taken than some diagrams published a propos of the subject by Cushing. These are especially valuable for radical cure of hernia and for removal of testicle, of which I have had several cases in markedly phthisical patients, whose lungs would hardly have tolerated either chloroform or ether.

As to abdominal organs, it appears almost certain (Lennander) that they are *per se* insensitive to pain so far as they are independent of the parietal peritoneum in any of its reflexions. For instance, I have watched a patient's face while inserting a trocar in several directions deeply into the liver, and it showed complete indifference. When asked, he stated that he felt nothing. The incision through the abdominal wall had been previously made under eucaïne. Again, I have several times divided the vermiform appendix with the actual cautery without pain, though

the analgesic fluid had only been applied for the paretics. But a drag on the mesenterium or on adhesions about the vermiform appendix is felt as gripping unless the injection have reached them.

It is plain, then, that our injection must in every case be carried out with special reference to the nerves of the part (regional analgesia).

2. The strength of the B eucaine solution has only been settled after much practical experience. We must, on the one hand, keep within the safe dose of the drugs, and on the other have at our disposal a large enough quantity of the fluid medium to render it possible to spread the analgesic agents over large areas. If we suppose 6 grains of B eucaine to be about the full dose when combined with adrenalin, a good deal of fluid will be required. My own experience (now a long one) leads me to the conclusion that for ordinary surgical work the following solution answers well:

Distilled water.....	100 c.cm.	= 3½ oz.
B eucaine.....	0.2 gram	= 3 grains.
Sodium chloride.....	0.8 gram	= 12 grains.
1 pro mille adrenalin chloride solution	...	℥ x

The actual strength of adrenalin in this solution is one in two hundred thousand (1:200,000).

All this quantity of fluid can be used in an ordinary case if necessary, and is quite sufficient for most. But I have often injected twice as much when large areas had to be dealt with, and have seen no ill results from the 6 grains of eucaine or 20 minims of adrenalin. The latter amount corresponds to just about 1 mg. of adrenalin, namely 20 minims — circa 1 c.cm. of 1 pro mille solution.

I have also used 4 grains B eucaine to 100 c.cm., but noted no appreciable increase of analgesia.

I have made several observations on this fluid with Beckmann's apparatus to prove its osmotic tension, and found that it is as nearly as possible isotonic with the blood. If not isotonic such a solution would produce pain on injection, and might also lead to necrosis of the tissues into which it was injected. This was actually the case in the practice of a friend of mine, who used 2 per cent. of eucaine simply dissolved in boiled water without any addition of sodium chloride. The analgesia was excellent, he told me, but necrosis of the injected tissue followed. To test the osmotic tension of a 2 per cent. of B eucaine alone I froze it in the Beckmann's apparatus and showed him that it registered—0.28 C. as against human blood—0.56 C. Hence his trouble.

With the solution given above we have never seen the slightest sign of loss of vitality. In short, it was "isotonic" and "indifferent" to the tissues. It is very easily made. In a Jena

glass beaker, or 7 oz. wide-mouthed flask into which a syringe will go, $3\frac{1}{2}$ oz. (—100 c.cm.) of distilled water is put and boiled. To this is added a powder containing the B eucaine 3 gr. and pure sodium chloride 12 gr. After a couple of minutes' boiling it can be let cool to blood heat, or cooled by standing the flask in cold water. Then 10 drops of the 1 per thousand adrenalin chloride solution of commerce is added, and the solution is ready for use.

The adrenalin solution is best measured by drops from the bottle itself with a loosened stopper. Other ways of measuring are wasteful, and above all expose the fluid to air and light, which soon spoil it, and to septic contamination of the whole bottle, which would be dangerous. If it is dropped as described, and the stopper refastened, the fluid in the bottle will keep good for months in my experience, if left, besides, in its box in the dark. I have often tested these drops with a standard measure, and find about 18 or 20 go to the cubic centimetre. Adrenalin solution should not require boiling. It is already sterile or will not keep. I have sometimes put the drops into the solution while boiling and found that this did not destroy its specific properties, but they seemed to pass off more rapidly than when the drops were added from the bottle direct to the solution at blood heat. Any alkali spoils it at once, hence the Jena glass. The syringes must, of course, be boiled, but not in the usual soda solutions, for the same reason. The needles are best sterilized in alcohol. The ordinary Freienstein's needles fitted into fine caps screwed on to hollow rods, answer all the purposes of limited injections, the finest size being used for the skin, the larger for moderate depths of tissue. But where greater distances have to be reached—for example, the whole length of the inguinal canal—a longer needle is necessary. For this I have devised a needle which so far answers all purposes. Two sizes—1 mm. and $\frac{1}{2}$ mm. thick—are used. Each is 5 in. long. As such a length of fine steel tubing is very flexible and difficult to force through the tissues, especially if blunt (as it should be to avoid injury to vessels), it is so arranged by a little device of my own that it can be set to begin with at a short length until it has entered the tissues, when it can be lengthened up to $4\frac{1}{2}$ in. This is provided for as follows: Each needle is a plain, straight, fine tube slightly bevelled at the distal end or closed blunt with a lateral opening. It is passed through the lumen of a small section of $\frac{1}{8}$ in. of the finest rubber catheter (Jaques). This little rubber collar just fits into the screw-cap, which is then screwed up on the straight rod into which the needle runs, the other end of which fits on the syringe. When the cap is screwed down on the rubber the needle is fixed water-tight. When it is unscrewed a turn or two the needle can be drawn out of the hollow rod or pushed in and again fixed.

All these needles should be washed in plain hot water after use, to remove the salt solution, and then be washed in spirit, their stylets being finally replaced in them. The rubber cap should also be removed from them, as it spoils the metal if left long in contact with its bright surface. When thrusting these blunt needles through the skin it is well to prepare the way by a puncture with a large sharp-edged needle through the spot previously anesthetized by the fine needle of the first injection.

3. The duration of the insensibility is secured by the admixture of the adrenalin. Without it sensation is only abolished by eucaine for about fifteen minutes, with it for three or four hours—that is, as long as the anemia lasts. But, on the other hand, the analgesia is produced more slowly when adrenalin is employed with the eucaine. It is, therefore, well, before all larger operations, to wait some thirty minutes after injection to allow time for the insensibility to become fully developed. After this the effect appears to deepen for a couple of hours. In one case of operation for a recurrence in the breast involving the removal of a mass of skin as big as half my hand, I had injected two and a half hours before. Sensation was still absolutely abolished, the patient spontaneously expressing her wonder and delight that she had felt no pain at all. She made an interesting remark besides—that is, that she could tell when a knife was used and when a needle by the touch, but both were absolutely painless. Others have said the same, showing it is not anesthesia but analgesia. Waiting for half an hour or so may sometimes be inconvenient, unless the time be utilized for preparation of instruments, etc. In hospital it gives little trouble. Three or four cases can be infiltrated at once, or one after the other, and left in the wards, while some other operation requiring general anesthesia is done. They can then come in in succession.

Waiting has another advantage which places this above the earlier methods of repeated infiltration of eucaine alone. When the latter is employed the operation must be practically done at once. It will then be found that the tissues are still in a state of artificial edema from the amount of fluid injected. This edema may mask the anatomical details unpleasantly for beginners. When, on the other hand, adrenalin has been added to the eucaine solution, and we have waited, say, forty minutes, the artificial edema has disappeared, and we cut through pale and almost bloodless tissues, where the details are very clearly seen. Rapid injection* is to be avoided; the sudden distension of the tissues is disagreeable, if not painful. The fluid should not be allowed to become cold, or be used too hot for the same reason. These and other small details will soon be learned by any one who is in earnest and patient.

Of course, all dragging on the parts is to be avoided, lest

structures be pulled upon which lie beyond the area of infiltration. This is the crux of abdominal operations. The parietes can easily be rendered insensitive to pain over a large area. But if the hand has to be introduced it will, in many cases, reach beyond this area and so produce pain, for the *parietal* peritoneum is particularly sensitive (Lennander, Dogiel, Ramstrom). Again, in handling the intestines (themselves insensitive), say, in a colotomy, one must be careful not to drag on the mesentery, which has the reflexions of the parietal peritoneum at its root. For these reasons, at all events for the present, it appears undesirable to employ this method alone for the longer operations on the abdomen where dragging to some extent is unavoidable. But in such cases the prolonged use of the general anesthetic can be much curtailed by the previous injection of the tissues by this method. Then the abdomen can be opened, and when the patients begin to feel pain chloroform can be given, perhaps only for a few minutes until any dragging manipulations are over. Then the chloroform can be at once stopped, and the tedious stitching, whether of the insensitive intestines or infiltrated parietes, can be finished without pain. For instance, in an appendectomy, in the "free interval" this course was pursued. My patient had chloroform for just one minute, a matter of some importance to her lungs and kidneys, and the avoidance of subsequent sickness, as she was a lady past sixty. She said the pain of tearing some adhesions round the appendix was slight, and she could have borne it easily, but took the few drops of chloroform at my request. Another patient had seven or eight minutes of chloroform while I was finding and separating the appendix. Here there was short after-sickness.

As for general anesthesia, so also for the local, the preparation of the patient beforehand is most important. But here a preliminary fast is not desirable. Those who have had a light meal previously are always, *ceteris paribus*, the better for it. The rule is to give them an egg beaten up with some milk and a little brandy, or a cup of tea or coffee not long before the operation. Again, some patients, if anxious, are soothed by a little morphine hypodermically. The feeling of *bien être* thereby induced enables them to bear the tedious lying on the back all the better. Of course, some individuals are nauseated by morphine, and if this is known of any particular patient it will be avoided.

With a little experience the surgeon, too, will have confidence in the method: and by manner and a word or two will communicate this feeling to the patients. It is a very bad policy to suggest to them that they may have pain. At the very most, if they inquire, they can be told that, at their slightest wish, they shall have chloroform at any moment. A cup of tea or coffee given during the operation is a way of distracting the attention of the patient frequently employed with the best results.

As to the question of depressing effects following on the use of B. eucaïne, I can only say that I have never seen any in a long series of operations, although in several up to 6 gr. of the drug have been injected exceptionally. To judge from the reports of those who employ cocaine for producing local analgesia, the contrary is the case, and they recommend the subcutaneous injection of strychnine and the use of camphor and other stimulants during the operation (Lennander). They also insist that the patients should be kept quietly in the horizontal position for some hours after operation. With eucaïne patients have taken no harm from walking away from my house, even when it had been used freely, and in hospital no after-treatment has been necessary. This appears to be a strong point in favor of eucaïne in contrast to cocaine if the abolition of pain is in any degree equal in each. And from what I have seen and heard, the method here described appears to have given better results in this respect than those in which cocaine was employed; and the fact that all the injections can be finished before the operation has been begun, and need not be repeated, places it for long operations far above those in which (Schleich) injection has to be done over and over again in the course of an operation. With painstaking study and watchfulness in a large number of cases alone has it arrived at its present stage of efficiency; and that, with longer observation and wider experience, it is capable of further development seems certain. But when, during twenty-four hours, I have been able by this method to perform the following operations with the most satisfactory results, it must be admitted that important progress has already been made: (1) Amputation through the knee-joint for gangrene of the foot, due to diseased arteries and diabetes; (2) abdominal section and opening of the stomach and jejunum in search of a source of severe bleeding (not found); (3) removal of a cyst of the thyroid; (4) Bassini's radical cure of inguinal hernia; (5) removal of a silver wire from round the patella.

There is one further point which contributes largely to success. It is that the surgeon should operate with delicacy, and without dragging more than is absolutely necessary on the structures in the field of operation. From this it follows that whoever injects shall be quite familiar with the details of the operation from beginning to end. It is undoubtedly better, therefore, for the operator himself to make the injection; but if this is inconvenient he must have an assistant who is quite familiar with all his methods and style of operation; in short, one who has frequently seen and assisted him, and is perhaps an operator himself. Such an assistant I can now rely upon for injecting my cases, and his results are all that can be desired.

With the following list of operations performed recently under eucaine analgesia before me, I find it difficult to understand why any one still employs cocaine, which is admittedly far more dangerous, and can hardly yield better results.

Numerous samples of the drugs above mentioned are sent to me from time to time from both home and foreign sources. Some are in solid, some in liquid form in sealed glass capsules. They are designed to save time in the preparation of the injection fluid. After much laborious testing of various methods, it appears to me that greater certainty and safety are secured by making the solution for oneself as above described, and that no time is lost thereby. The preparation of the fluid is simplicity itself, and it is all the safer from being made fresh for each case.

This paper is not intended to suggest doubts as to the benefits we all derive wholesale from general anesthetics. But we need no reminder that the latter have their drawbacks. And, from what I hear almost daily, this method appears likely to play a useful *role*, especially in the country and the Colonies, where the skilled anesthetist is not always at hand. But, even among ourselves in town, there are many cases in which the chief anxiety of the operator is how the patient will bear the general anæsthetic, often necessarily prolonged. The diabetics—one of the amputation cases in the following list was on the borderland of acetoneemia—the aged people with strangulated hernia, the people with goitre, and even those simple cases where there is practically no danger from the operation itself, all undergo a certain risk from general anesthetics, which can be avoided by the above procedure. It requires some patience and experience to master the details of the latter, but it is certain that these are not thrown away.

LAST SERIES OF OPERATIONS PERFORMED UNDER EUCAINE ANALGESIA.

Abdominal Sections	8
Herniæ	23
Amputations (knee, 2 ; arm, 1 ; toe, 1)	5
Varicose Veins	12
Thyroid tumors	3
Orchidectomy	3
Internal derangement of knee	3
Pre-patellar bursæ	3
Malignant tumors	4
Large papilloma of axilla	1
Fistula in ano	2
Large lipomata	3
Rodent ulcers of face	2
Empyema	1
Incisions of ulcers	5
Hydrocele	1
Varicocele	1
Cyst of breast	1
Adenoma of breast	2
Smaller operations	8

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—*British Medical Journal.*

F. N. G. S.

Proceedings of Societies.

THE CANADIAN ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

THE great interest taken in the movement to cope with consumption in Canada was made abundantly plain at the annual meeting of the Canadian Association for the Prevention of Tuberculosis, which assembled on March 15th, at Ottawa, under the presidency of Senator W. C. Edwards. There has probably never been so large an attendance at any previous meeting, and we trust that it will result in the inauguration of further practical steps for combating the dread disease. A resolution was passed asking the Government to appoint a Royal Commission to investigate and report upon the subject.

The members of the medical fraternity present from Toronto were: Dr. Chas. Sheard, M.H.O.; Dr. Noble, Dr. E. H. Adams, Dr. E. J. Barrick, Dr. Chas. O'Reilly, Dr. J. J. Mackenzie, and Dr. Chas. A. Hodgetts, Secretary of the Provincial Board of Health. Among the others present were: Dr. W. M. English, Chairman of the Board of Health, London; Dr. Hutchinson, M.H.O., London; Dr. Langrill, M.H.O., Hamilton, and Dr. Arthurs, Sudbury.

The Chairman, in opening the meeting, said they could not but be gratified at the large attendance.

Rev. Dr. Moore read the annual report, which recited that not less than 785,000 pages of printed matter, in the form of pamphlets and leaflets had been distributed. Allusion was made to the great effect produced by the resolution in favor of Dominion sanatoria, brought before the House of Commons by Mr. Perley, member for Argenteuil. There was reason to hope that something would be done by the Dominion and Provincial authorities to stem the ravages of the disease. A report was also read from the Colechester (N.S.) Tuberculosis Association, showing that an active crusade is being waged in that part of Nova Scotia against consumption.

Dr. C. O'Reilly read a telegram from Dr. Thorburn, of Toronto, expressing regret at not being able to be present, and assuring the meeting of the sympathy and approval of the Toronto Association.

Prof. Robertson, on behalf of the Treasurer, Mr. J. M. Court-

ney, read the financial statement, showing a balance in hand of \$932. "I do not think," he said, in concluding his task, "that any other association ever had so much work done for such a small expenditure of money."

Mr. Lawrence said the subject of combating tuberculosis was receiving a great deal of attention in the county of Colchester, and this was largely owing to the lectures delivered by the Secretary. Nova Scotia, he was glad to say, had established the first government sanitarium in Canada. (Applause.)

Dr. Adami reported verbally on behalf of the Montreal Institute. The most important thing carried out had been the establishment of a tuberculosis dispensary. The City Council granted them last year \$700, and appointed one of its health officers to act as inspector for the association. A sum over and above the \$700 had been voted this year.

Dr. Barrick spoke interestingly of the work accomplished in Toronto. A by-law had been passed voting \$50,000 to this work, but another \$25,000 must be raised before the former sum would be available. Towards the \$25,000 many promises had been received.

On motion of Sir James Grant the Association resolved to petition the Dominion Government to take such action as might be expedient to constitute a Royal Commission, with authority to inquire into and report upon what active steps should be taken to lessen the wide-spread suffering and the great mortality among the people of Canada caused by the various forms of tuberculosis.

During the afternoon meeting one of the delegates raised the point that some cases of tuberculosis were caused by vaccination, but the idea was promptly frowned down by the rest of the meeting.

Dr. Chas. Hodgetts threw out the suggestion that there should be a Minister of Health and Labor, not only for the Dominion, but in each of the provinces as well.

Hon. W. C. Edwards was re-elected President, Mr. J. M. Courtney, Treasurer, and Rev. Dr. Moore, Secretary. Bishop Hamilton and Dr. Hodgetts were elected on the Executive Committee from Ontario.

A large and fashionable audience assembled in the Normal School Hall at night to hear the lecture of Dr. Adami, Pathologist at McGill University, on tuberculosis. Earl Grey presided, and announced his hearty sympathy with the movement. He urged Canada to try and take the lead in banishing tuberculosis from its midst.

Prof. Adami's address was a humorous and scholarly one, and abounded in details of the latest medical discoveries bearing on the question. In the course of his remarks he said that tuber-

culosis was a preventable disease, and cited the remarks of his Majesty the King to the International Congress in London, "Why not prevent it?" Although in some cases the tissues did not seem to have any resisting power, tuberculosis was by no means progressive. Out of 139 post-mortems performed by his department there were eighteen cases in which tuberculosis assumed a progressive character, and had assuredly been the cause of death. In forty-one cases there was absolute evidence that the disease had been arrested, and had seemed to heal. The evidence was all against the idea that human tuberculosis could be given to cattle. Where tuberculosis passed from cow to cow for a long period it became more virulent to cattle and less and less virulent to man. We had not so much to fear from milk containing the bacillus, but there was danger where young and weakly children were concerned. The danger in regard to milk containing tuberculosis bacilli was there, but it had been exaggerated. Dr. Adami suggested the stamping out of bovine tuberculosis, beginning with Prince Edward Island.

A vote of thanks to the distinguished lecturer was adopted on motion of Sir James Grant, seconded by Dr. Sheard, and in replying Dr. Adami made it clear that milk containing bacteria of any kind should not be drunk. The Governor-General was thanked for his presence and sympathy in a resolution moved by Hon. S. Fisher.

A Physician's Covered Tilbury Cart for Sale.--Any medical practitioner desirous of buying at about half price, an almost new Hutchinson Tilbury Cart, should communicate by postal card with Box 39, CANADIAN JOURNAL OF MEDICINE AND SURGERY. It is one of the best ever turned out by Hutchinson & Son, Toronto; full Collinge axles, lancewood shafts, and trimmed in blue, all-wool cloth, and cost \$375. Write at once.

Ontario Medical Association.--The twenty-fifth annual meeting of the Ontario Medical Association will be held in Toronto, in the New Medical Buildings, Queen's Park, June 6th, 7th and 8th next. Any member desiring to read a paper will kindly forward the title to the Secretary by May 1st. Papers must be in the hands of the committee by May 31st. Fifteen minutes are allowed for the reading of a paper. If too long to be read in this time an abstract may be presented. Five minutes is allowed to each taking part in the discussion. Dr. A. Primrose, Toronto, is Chairman of the Committee on Papers and Business, and Dr. Charles P. Lusk, 99 Bloor St. West, Toronto, is General Secretary.

Selected Articles.

DR. WILLIAM OSLER ON AGE.

HERE are the extracts in full from Dr. William Osler's farewell address at Johns Hopkins University, Baltimore, referring to middle age and old age, that have caused a great deal of comment:

"I am going to be very bold, and touch upon another question of some delicacy, but of infinite importance in university life, one that has not been settled in this country. I refer to a fixed period for the teacher, either of time of service or of age. Except in some proprietary schools, I do not know of any institution in which there is a time limit of, say, twenty years' service, as in some of the London hospitals, or in which a man is engaged for a term of years. Usually the appointment is *aut vitam aut culpam*, as the old phrase reads. It is a very serious matter in our young universities to have all of the professors growing old at the same time. In some places only an epidemic, a time limit, or an age limit, can save the situation.

"I have two fixed ideas well known to my friends, harmless obsessions with which I sometimes bore them, but which have a direct bearing on this important problem. The first is the comparative uselessness of men above forty years of age. This may seem shocking, and yet read aright the world's history bears out the statement. Take the sum of human achievement in action, in science, in art, in literature—subtract the work of the men above forty, and while we should miss great treasures, even priceless treasures, we would practically be where we are to-day. It is difficult to name a great and far-reaching conquest of the mind which has not been given to the world by a man on whose back the sun was still shining. The effective, moving, vitalizing work of the world is done between the æges of twenty-five and forty—these fifteen golden years of plenty, the anabolic or constructive period, in which there is always a balance in the mental bank and the credit is still good.

"In the science and art of medicine there has not been an advance of the first rank which has not been initiated by young, or comparatively young, men. Vesalius, Harvey, Hunter, Bichat, Laennec, Virchow, Lister, Koch—the green years were yet upon their heads when their epoch-making studies were made. To

modify an old saying, a man is sane morally at thirty, rich mentally at forty, wise spiritually at fifty—or never. The young men should be encouraged and afforded every possible chance to show what is in them. If there is one thing more than another upon which the professors of this university are to be congratulated, it is this very sympathy and fellowship with their junior associates, upon whom really in many departments, in mine certainly, has fallen the brunt of the work. And herein lies the chief value of the teacher who has passed his climacteric and is no longer a productive factor; he can play the man midwife, as Socrates did to Thesetetus, and determine whether the thoughts which the young men are bringing to the light are false idols or true and noble births.

“My second fixed idea is the uselessness of men above sixty years of age, and the incalculable benefit it would be in commercial, political and in professional life if, as a matter of course, men stopped work at this age. Donne tells us in his ‘Biathanatos’ that by the laws of certain wise states sexagenarii were precipitated from a bridge, and in Rome men of that age were not admitted to the suffrage, and they were called *deponati* because the way to the senate was *per pontem*, and they from age were not permitted to come hither. In that charming novel, the ‘Fixed Period,’ Anthony Trollope discusses the practical advantage in modern life of a return to this ancient usage, and the plot hinges upon the admirable scheme of a college into which at sixty men retired for a year of contemplation before a peaceful departure by chloroform. That incalculable benefits might follow such a scheme is apparent to anyone who, like myself, is nearing the limit, and who has made a careful study of the calamities which may befall men during the seventh and eighth decades.

“Still more when he contemplates the many evils which they perpetuate unconsciously and with impunity. As it can be maintained that all the great advances have come from men under forty, so the history of the world shows that a very large proportion of the evils may be traced to the sexagenarians—nearly all the great mistakes politically and socially, all of the worst poems, most of the bad pictures, a majority of the bad novels, not a few of the bad sermons and speeches. It is not to be denied that occasionally there is a sexagenarian whose mind, as Cicero remarks, stands out of reach of the body’s decay. Such a one has learned the secret of Hermippus, that ancient Roman who, feeling that the silver cord was loosening, cut himself clear from all companions of his own age and betook himself to the company of young men, mingling with their games and studies, and so lived to the age of 153, *puerorum habitu refocillatus et educatus*. And there is truth in the story, since it is only those who live with

the young who maintain a fresh outlook on the new problems of the world.

"The teacher's life should have three periods—study until twenty-five, investigation until forty, profession until sixty, at which age I would have him retired on a double allowance. Whether Anthony Trollope's suggestion of a college and chloroform should be carried out or not, I have become a little dubious, as my own time is getting so short. (I may say, for the benefit of the public, that with a woman I would advise an entirely different plan, since after sixty her influence on her sex may be most helpful, particularly if aided by those charming accessories, a cap and a fichu.")

MUCH ADO ABOUT NOTHING.

THE American favorite funny story is about the Englishman who cannot see a joke. The tomato story with "They eat what they can and tin the rest" has circled the globe, and "What *was* the matter with the custard pie" is equally famous. But now it is the Englishman's turn to laugh. We fancy that for some years to come no American on English soil can hear the word "chloroform" without feeling silly.

Americans may not know that with all their ability to see a joke, they are world famous for not being able to take a joke; and a more jovial joker, a more epigrammatic and witty member of society than Dr. Osler never made after-dinner speeches.

The furor that has been raised over his retiring speech at Johns Hopkins reminds one of the "Hobson's kiss" episode, and the "Dewey's house" business. It is on a par with the marvellous facility of the press to kindle a mighty flame from a very little matter, and it illustrates most delightfully our national tendency to take ourselves very seriously. We can ha ha at our neighbor's expense, but not at our ourselves.

Now, when Dr. Osler in his dry and genial manner wished modestly to indicate to his fellow-workers that he felt he had lived his best days with them, he facetiously quoted from Anthony Trollope's novel, the "Fixed Idea," the scheme on which the plot hinges, of a college into which at sixty, men should retire for a year of contemplation before a peaceful departure by chloroform. He adds, pointing at himself, the barb which all the solemn readers of the daily news claim was hurled at their self-respecting selves, these words: "That incalculable benefits might follow such a scheme is apparent to any one who, like myself, is nearing the limit and who, like myself, had made a

careful study of the calamities which may befall men during the seventh and eighth decade."

He then adds, after recounting some of the well-known follies of the aged: "The teacher's life should have three periods. Study until twenty-five, investigation until forty, profession until sixty, at which time he should be retired on a double allowance." The press missed this point.

To round up his playful allusion he says, with affected hesitation: "Whether Anthony Trollope's suggestion of a college and chloroform should be carried out I have become a little dubious, as my own time is getting too short."

Dr. Osler is taking with him to Oxford a curious epistolary collection, for he has been bombarded with letters, telegrams and articles from the senile and the presenile all over the country, stating in good set terms why they should not be chloroformed.

If Dr. Osler was to stay with us much longer we fear that he would have to take to heart the advice of John G. Saxe, who says:

"Learn to wear a sober phiz,
Be stupid, if you can;
It's such a very serious thing
To be a funny man."

—Ed. *New York Medical News*, Mar. 4th, 1905.

THE VERNON HARCOURT INHALER.

BY DUDLEY W. BUXTON, M.D., B.S., M.R.C.P.
Anesthetist to University College Hospital.

THE following abstracts comprise the favorable experience Dr. D. B. Buxton has had with The Vernon Harcourt Inhaler, proving its general facility, the slight amount of struggling on the part of the patient, and rapid recovery after its use:

A. Woman, aged 50. Exploratory trephining. Patient alcoholic, and induction prolonged and narcosis light (talking); 2 per cent. required for induction, 1 per cent. used during operation.

Male, aged 15, removal of testicle. Induction .5 to 1 per cent., six minutes. Quiet narcosis maintained with .5 per cent.

Male, 19, for genu valgum. Induction .5 to 1 per cent. in six minutes, maintained at .5 mostly.

Elderly male, Kraske's operation. Induction .5 to 1 per cent. for six minutes, then 2 per cent. Patient lying on his chest, anesthesia maintained 1 per cent. with occasionally 1.5 per cent. and 2 per cent., but owing to posture some leakage was probable around mask.

Powerful man, resection of cervical nerves for torticollis; 1 per cent. used.

Woman, aged 50, removal of breast; 1 per cent. used.

In these and other operations, Mr. Crawford (House Physician) remarks the period of induction was usually devoid of struggling. The patients took the anesthetic easily. The degree of narcosis was light; no dangerous symptoms arose.

B. Female, 31, femoral hernia. Induction .5 to 2 per cent. in seven and a half minutes. No struggling. Operation performed with 1 per cent; patient quiet, but C.R. present—duration forty-five minutes. 4 fl drachms used.

W. B., male, 19, for cerebral tumor. Induction 1.5 per cent. in two minutes, C.R. present. Operation done in thirty minutes under .5 per cent. No struggling. 1½ fl drachms used.

Female, 46, removal of kidney. Induction eight minutes, .5 to 2 per cent. Slight struggling. No movement during operation, although, owing to posture, some air probably entered round mask, reducing percentage below 2. C.R. present, although sluggish. Duration of narcosis eighty minutes. 1 fl. oz. used.

In all these cases respiration was accelerated at times during operations, when dragging or other peripheral stimulation was practised, owing to anesthesia being light.

Male, 32, for cerebral tumor. Induction .5 to 2 per cent., ten minutes; was restless fifteen minutes. During operation 2 per cent., 1 per cent., then .5 per cent. Final sewing up caused movement, 2 per cent. given. Duration, forty minutes. ½ fl oz. used. Patient gained consciousness in five minutes after cessation of inhalation.

Female, 29, fissure and ulcerated pile. Induction, .5 to 2 per cent., ten minutes. Dilatation of sphincter caused quickened breathing. C.R. sluggish during operation. Duration thirty-six minutes. Regained consciousness in about half an hour. Some sickness during the night.

Male, 24, radical cure of hernia. Induction, .5 to 2 per cent., seven minutes; no struggling. Slight movement of limbs after skin incision, and quickening of respiration upon dragging on deep structures. After twenty-five minutes, as some dusiness was present, 1.5 per cent. used; cyanosis lessened. In thirty-two minutes 1 per cent. used, but coughing and finally vomiting occurred, so 2 per cent. was gone back to after three minutes. Final skin sutures quickened respiration. Recovered consciousness five minutes after discontinuance of anesthetic, and vomited. Duration, fifty minutes.

The cases cited were mostly done in my presence by my dressers, so the apparatus was subjected to a more severe test than if it had been in the hands of an expert. The most notice-

able points about the narcosis which was induced are: (a) the facility with which patients inhale; (b) the slight amount of excitement or struggling; (c) its light degree and the readiness with which it lightens; (d) the rapid recovery; (e) absence of anomalous symptoms.

REFRIGERATING PLANT AT LONDON HOSPITAL.

THE refrigerating machine which is one of J. & E. Hall's No 8a horizontal type with separate evaporator and condenser, is driven by an electric motor through a small countershaft fixed on the roof of the chamber. The plant is also provided with a water circulating pump and a brine circulating pump.

For the sake of economy of water a water re-cooling arrangement is installed and placed on the roof of the engine room to spray the water, the spraying nozzles being surrounded by wind louvres and the spray caught in a shallow tank. The water, after it has passed through the condenser, is re-cooled and used over again, thus only a very small quantity is required to replace the wastage and evaporation.

The duty of the plant is as follows:

To manufacture about two tons of ice per twenty-four hours.

To cool an ice store situated below the ice plant and capable of containing about 150 tons of ice.

To cool to a temperature of about 32 deg. a mortuary containing twelve bodies.

To cool a freezing larder to a temperature of about 25 deg., this larder containing all kinds of frozen goods like meat, poultry, game, etc.

To keep at a temperature of about 35 deg. a larder of 1,600 c.f. capacity, this larder being used for storing the every day's provisions.

To cool a small store next to the ice store.

The machine is used for cooling brine, which the brine circulating pump distributes through the ice tank and the pipes in the various chambers where "cold" has to be produced, some of the chambers being at a considerable distance from the machine itself.

The mortuary and freezing rooms are cooled by means of large galvanized overhead cylinders. These contain a considerable volume of cold brine, thanks to which great regularity in the temperature of the chambers is obtained, and the cooling effect continues for a considerable number of hours after the machine

is stopped, so that there is no necessity for running the machine on Sundays.

The provision larder, where the temperature does not require to be so low as in the freezing room, is fitted with Messrs. J. & E. Hall's patent brine walls, which lie flat against the walls and take up very little room in the chamber.

Special attention has been given to the ice-making plant. The ice is manufactured in blocks of one cwt. each, and is quite transparent, as distilled water is used for filling the ice moulds.

This is only one of the many refrigerating plants which Messrs. J. & E. Hall, Limited, have installed in hospitals, asylums, etc., but it is certainly one of the most interesting, as the refrigerating plant is used for so many different purposes, and, thanks to the system of brine circulation used, the "cold" can be applied to any part of the building, sometimes at a considerable distance from the machine itself, as the machine, using as the refrigerant an entirely harmless gas, can be placed in any suitable position.

THE INTERNATIONAL MAGAZINE OF SCHOOL HYGIENE.

UNDER the above title, written in three languages, German, French and English, a new magazine has just appeared, the first copy, published in Leipsic on January 13th, reaching Toronto on the last day of that month. It attests the great interest taken at present in the subject of school hygiene, an interest which is growing every day. The magazine is German with the exception of one page, the prospectus, which is in the three languages already mentioned. From it we learn that the subject matter includes: (1) Hygiene of school buildings and their furniture; (2) hygiene of residential schools and kindergartens; (3) methods of investigation in school hygiene; (4) hygiene of teaching and of teaching materials; (5) hygienic instruction of teachers and scholars; (6) physical education of youth; (7) diseases and medical service in schools; (8) hygiene of special schools; (9) hygiene of school children out of school; (10) hygiene of teachers; (11) general hygienic development in youth; (12) legal decisions and regulations regarding school hygiene; (13) conferences and congresses for school hygiene; (14) history of school hygiene.

The magazine is for the publication of original articles only, which will be paid for at the rate of fifty marks per printed sheet. It appears in parts of ten sheets, and the interval at which the parts appear will depend on the amount of manuscript

for publication. The first number contains nine articles and comprises 145 pages. There are 160 associate editors, of whom nine are English and Scotch, seven American, and two Canadian. The four editors are Le Docteur Mathieu, of Paris; Sir Lauder Brunton, London; Professor Johann Essen, of Christiania, and Professor Griesbach, of Mulhausen. An English translation of this interesting and valuable magazine is urgently required, and is, we believe, in course of publication.

The Personal Influence of the Physician in Venereal Diseases.

—H. D. Holton, Brattleboro, Vt. (*Journal A. M. A.*, March 11), calls attention to the great good that might be accomplished by physicians giving personal instruction to patients concerning the prevention of venereal diseases. He quotes circulars discussed at the 1903 meeting of the State and Provincial Boards of Health of North America, which are issued by the various boards to physicians in their jurisdiction.

Reed & Carnrick's New Canadian Agency.—This well-known firm, with headquarters at Jersey City, N.J., have appointed Messrs. A. L. Massey & Co., 61-63 Adelaide St. East, Toronto, their sole Canadian agents. We think that Reed & Carnrick have acted wisely in this connection, A. L. Massey & Co. having exceptional facilities for sampling and bringing Peptenzyme and other preparations made by this firm before the profession throughout the Dominion. Another agency secured by the new Toronto physicians' supply house is that for Homburg Salts, which is rapidly securing a place as a therapeutic agent.

Biloxi Sanatorium.—We take pleasure in referring our readers to the announcement, on page xlv. of this issue of the *JOURNAL*, of Dr. H. M. Folkes, President and Medical Superintendent of Biloxi Sanatorium, at the town bearing a similar name in the State of Mississippi. Dr. Folkes is known to quite a number of Canadians, and all who have the pleasure of his friendship know full well that he conducts an institution of the most ethical character. Biloxi Sanatorium is situate on the Gulf of Mexico, an ideal place for those desiring to thoroughly recuperate from illness. Dr. Folkes is anxious to have Canadian physicians become better acquainted with his institution, and will be glad to have suitable cases referred to him. He has a staff of physicians as well as a corps of competent nurses, and has special facilities for the treatment of neurasthenia, insomnia, asthma, dyspepsia and kindred ailments. The rooms are large and airy, spacious grounds with most delightful bathing summer and winter. Write Dr. H. M. Folkes, Biloxi, Miss., for full particulars.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

EDITOR,

43 BLOOR STREET EAST, TORONTO.

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W. A. YOUNG, M.D., L.R.C.P. Lond.,

MANAGING EDITOR,

145 COLLEGE STREET, TORONTO.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

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Pharmacology and Therapeutics—A. J. HARRINGTON M.D., M.R.C.S. Eng., Toronto.

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

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NO. 4.

Editorials.

DR. OSLER'S OPINIONS ON THE CAUSE OF GREATNESS IN MEN.

BENJAMIN D'ISRAELI, in "Coningsby," which appeared sixty-one years ago, proclaims the glorification of youthful genius, as evidenced in Hannibal, Bonaparte, Nelson, Clive, Cortes, Leo X., Richelieu, Loyola, Byron, Raphael; but he is careful to inter-

ject: "Do not suppose that I hold that youth is genius; all that I say is that genius, when young, is divine." And again: "Experience is the best thing in the world, a treasure for you, for me, for millions. But, for a creative mind, less than nothing. Almost everything that is great has been done by youth."

D'Israeli's thought is limpid. To genius, which has always been, and ever will be, exceptional, experience is little. The creative mind makes its own canons of taste in art and poetry, its own laws for the conduct of war, politics and statecraft. Men bow before it and call it divine. But youth is not genius; for life in general there is but one decree: "Youth is a blunder, manhood a struggle, old age a regret."

In a speech, delivered at the anniversary exercises of the Johns Hopkins University, Baltimore, February 22nd, 1905, Dr. Wm. Osler presented a thought similar to D'Israeli's, but the extract he takes from it is dissimilar. He said: "It is difficult to name a great and far-reaching conquest of the mind which has not been given to the world by a man on whose back the sun was shining. The effective, moving, vitalizing work of the world is done between the ages of twenty-five and forty, those fifteen golden years of plenty, the anabolic or constructive period, in which there is always a balance in the mental bank and the credit is still good." This is a plea for arduous labor between twenty-five and forty. When, however, Dr. Osler instances Vesalius, Laennec, Bichat, Harvey and Virchow to prove his contention he confuses genius with "the fifteen golden years of plenty." It is true that a man of genius does his best work during the youthful period of his life; but does he make his wonderful advances, his startling discoveries, on account of his youth, or because he is a genius? Dr. Osler does not make this point clear, or, rather, he gives prominence to the importance of a man doing hard work before forty.

Andreas Vesalius, at twenty-two, was appointed Professor of Anatomy at Padua, by the Senate of Venice; at twenty-nine he issued his great work on anatomy, which showed a completeness superior to all that had hitherto been published on that subject. He died at fifty years of age. Was the advance effected by him in human anatomy the product of boldness and genius, or of the fifteen golden years before forty? Was not something

more than youth required to enable one man to stem the prejudice of the ignorant and the sloth of his own profession, so that physicians might dissect cadavers, which had been properly described, instead of accepting Galen's description of monkey anatomy?

Laennec succumbed at forty-five. His great work on mediate auscultation, a treatise on prognosis in diseases of the lungs and heart, based principally on the revelations of his own discovery, the stethoscope, was published when he was thirty-eight. When four years younger he had discovered the stethoscope. Did he make that discovery because he was thirty-four years old, or because he had a genius for observation and reflection?

Bichat died of tuberculosis at thirty-one, yet his life and his works (nine important volumes) were given to fame at an age when aspiring men are beginning to lay the foundations of a reputation for greatness. Was it youth or genius that inspired this man, who was called the "Napoleon of Medicine," when he wrote, before the age of thirty-one, "The Treatise on Membranes," and other works on general and pathological anatomy? It was fortunate for France, and still more fortunate for medicine, in the early part of the nineteenth century, that Bichat began to write when he was very young. His work is immortal; but its value does not depend on the fact that it was done when Bichat was between twenty-five and thirty-one years of age.

Dr. Osler contends, in reply to an interviewer, that a great man should create or collect what he intends to write about up to forty, and, after that period of his life, publish the results of his studies or discoveries. William Harvey lived to be fifty-nine, but, soon after 1613, when he was thirty-five years old, he began, through his lectures, to make known the doctrine of the circulation of the blood.

Although Virchow lived to be eighty-two, the first edition of his "Cellular Pathology" appeared in 1858, when he was thirty-seven years old.

According to Dr. Osler's view, a man of genius should have the conviction that he is going to live to a great age, if he calmly awaits the coming of his fortieth year before beginning to publish his discoveries.

And what about the sexagenarian? "Quite useless," says Dr. Osler. "I am going to prove this in an essay I am now writing,

which is to be entitled 'The Crisis of Forty Years.' " He acknowledges that there have been some men of genius who have done good work at sixty, and a few salient examples occur to everyone: Michelangelo, Bismarck, Moltke, Gladstone.

Is genius rarer at sixty years than at twenty-five or thirty? True genius always was, and, it is likely, always will be, rare at any age. Owing to the operations of the school and the college, the cultured many are increasing rapidly in number; but the Edisons, the Marconis, the Ramsays, the Koehs are not evolved in a corresponding ratio.

Although culture is not genius, it has with it the enormous potency of experience, and can do much, both for one's self and for the people with whom one is thrown in contact. There is but one Shakespeare, yet millions of cultured people in many lands find pleasure and profit in his wise and witty words. There is but one Pasteur, yet the light of his discoveries illuminates medical laboratories all over the world, and cultured men of sixty help to swell the chorus of repetition as loudly as the most strong-lunged youngster of five-and-twenty.

Whether greatness be born of genius or a studious youth, of originality or skilful plagiarism, the new voice or its repetition, it will always be a good thing to help in the diffusion of knowledge, an incomparable service to mankind to increase the sum of knowledge. In this pleasure-seeking, force-loving twentieth century, Dr. Osler deserves credit for the stimulus he gives to the gentle student who spends the sapid years of his life working for more knowledge, striving to peer a little bit further into the encircling gloom.

J. J. C.

UNDESIRABLE IMMIGRANTS TO CANADA ARE DEPORTED.

AMONG the nations of the world Canada lacks supremacy only because her population is meagre. Her undeveloped resources require people. So great, however, is the merit of her agricultural lands that they are attracting many American citizens, inducing them to leave their own land—an immense gain to Canada and an irretrievable loss to the United States. Besides, many of the strongest and most adventurous of the peasantry of the different European nations continue to press on through seaports

on the Atlantic coast towards Canada's great West, where the earth yields plenty and opportunity is still to be found.

With them, in the same ships, come the undesirable classes—criminals, the mentally defective, the constitutionally unsound and diseased. At Toronto, the growth in the number of immigrants, suffering from disease or deformity, is exciting attention, and a conference was held, February 16th, 1905, at the mayor's office, at which opinions on this subject were expressed by gentlemen, who are in positions to know the actual facts complained of, as they are found in this city. Speaking of sick tramps and undeserving persons who seek for hospital relief, Dr. Sheard, M.H.O., Toronto, stated that they were becoming a serious tax on Toronto. It was impossible to refuse assistance, but the limit of possibility was being reached. Many applications had been received recently for admission to the city hospitals from persons who had been in Canada only two or three months. He instanced one case, in which the applicant for hospital relief had been in the country only five months, three of which had been spent in the Toronto General Hospital.

Mr. Thomas Southworth, of the Ontario Immigration Bureau, said that most of the immigrants from London are of a poor type. He thought that immigrants should be inspected at the point of embarkation.

Such a method of medical inspection would yield the best results to this country. It would also save time and money to the intending immigrant, and help to free him from unnecessary trouble. If, for sufficient reasons, such a method of inspecting immigrants cannot be carried out, then the next best move is to have it thoroughly done at the port of arrival in Canada.

The medical inspection of immigrants coming to Canada is done under the direction of Dr. P. H. Bryce, Chief Medical Inspector of the Department of the Interior. He is assisted by an inspection and hospital staff of four medical men at Quebec, and there are also efficient medical inspecting staffs at Halifax and St. John.

Dr. Bryce shows, in his last annual report, that, during the year 1903-1904, of 99,741 immigrants who landed at the ports of Quebec, Halifax and St. John 1,835 were treated at the detention hospitals, or 1 in every 54; 274 immigrants were deported, or 1 in 363.

That immigrants who might become burdens may slip through the inspectors' net is possible. The general rule is that immigrants suffering from curable diseases are treated, at their own expense, at the detention hospitals, and those in whom the physical condition or disease present is incurable, or cannot be cured, except after months of treatment, are deported. J. J. C.

NO ADMITTANCE TO DISEASED IMMIGRANTS.

"You cannot get a small house for love or money in Toronto," is a current remark that is passing from lip to lip. One picks up the daily newspaper, and the announcement that "all the cells in the Central Prison are full, not one empty one," meets the eye. The long, hard winter has caused much illness, and the hospitals and various charitable institutions echo the cry, "Overcrowded!" As spring opens the immigrants come pouring in, presumably to fill up the great West, but as there are good, bad and indifferent usually in every round-up of human cattle, the pick of the stock, well fitted for life's duties, go on to their destination, while the maimed, halt and indigent ones prefer to loiter around the cities, a charge upon their Christian charity. Lately the alarming number of these immigrants suffering from disease and even deformity, who are arriving in Toronto, is exciting attention and dissatisfaction. The Medical Health Officer has been bringing the fact forcibly to the notice of the mayor and other interested citizens.

It is a crime at somebody's door that such diseased persons are allowed to land in this country at all. Dr. Sheard has found that in several cases young Englishmen suffering from tuberculosis are among the number, and they make a habit of seeking admission to the hospital immediately upon their arrival. The hospitals will not admit as free patients any persons who have not resided in the city at least a year, so these unfortunate immigrants are going about spreading disease as they go, a nuisance to the already overworked City Relief Officer, and a menace to the health of the community.

Something must be done to stop the sending out of such incapables, and for the problem now on the city's hands, that is, the getting rid of those already here, Dr. Sheard has wisely sug-

gested, we believe, that the cheapest way to meet the difficulty is to place at the disposal of the City Relief Officer a fund, upon which he can draw for sums sufficient to pay the passage back home again of all undesirable immigrants.

Surely this immigration question is one that the lay, as well as the medical, press of the Mother Land ought to take up and discuss fearlessly for the enlightenment of the general public. It is a shame to make the colony, from whom England expects so much, merely a dumping ground for the human mistakes with which her overcrowded cities are teeming, creatures neither good for king nor country. Canada may need immigrants, but let them at least be clean and free from disease, strong in wind and limb, "hewers of wood and drawers of water." The land is worthy of the best, not Utopia, perhaps, but it has milk and honey in it in plenty: but if the immigrant wants the fatness of the valleys, let him understand, ere he leaves his native shores, that he must raise the cows first ere he regales himself on a milkshake, and let the honey bee sting him often, for that's the cure Canada offers for his rheumatism.

W. A. Y.

THE MEDICAL PRESS NOT LACKADAISICAL.

This is an independent journal. We proved it by publishing an article by one John Hunter, M.B., the only one, patent rights applied for, for use of M.P.P. after name—patent refused—entitled "Medical Men and the New Provinces," appearing on pages 150-1-2 of our March issue. The first part of the article is well written and properly devoted to the subject, but the latter part we deem an impertinence, in its reference to the Medical Council and its attack upon the medical press. Our Medical Council has the quietness of strength and the conservatism of good judgment. Almost unanimously physicians are in favor of Dr. Roddick's bill. John Hunter frets and fumes at the lackadaisical attitude of the Medical Council and press on inter-provincial legislation in the new provinces, whereas, in the same journal in which is printed Dr. Hunter's scolding, an editorial appears, strongly setting forth our views on the subject of Dr. Roddick's bill, which will include in its comprehensiveness, of

course, the new provinces. Rome was not built in a day, and all the fuss that one man can kick up on a subject cannot make it law. The medical journals do their share, we think, in setting forth sanely and strongly from time to time the claims the various questions at issue have upon the support of the profession throughout Canada. Perhaps the great West calls Dr. Hunter; it may need him: perhaps he needs the space, the elbow room, in which to air his views and edit a paper of his own. If so, why does he tarry? It might be that the parting with him, to the Medical Council, medical journalists, and at least some members of the profession in Toronto, would indeed be "such sweet sorrow."

W. A. Y.

EDITORIAL NOTES.

The Antidotal Effect of Alcohol in Carbolic Acid Poisoning.

—The employment of 95 per cent. alcohol to surfaces with which strong solutions of carbolic acid have come in contact, in order to overcome the caustic influence of the acid, has of late received much attention. A good many reports have appeared on this subject in the medical journals, but the explanation of the antidotal influence of alcohol to carbolic acid is not easy. Reports have also been made of cases in which, after poisonous doses of carbolic acid had been swallowed, the internal administration of alcohol mitigated the noxious effects of the carbolic acid. The combination, or mixture, of alcohol with carbolic acid also negatives the effects of the poison. Thus at London, Ontario, a woman who wished to end her life, swallowed a quantity of carbolic acid mixed with gin; but the gin so lessened the effects of the carbolic acid that a fatal result did not ensue. Poisonous doses of carbolic acid powerfully depress the heart, stopping it in diastole. The arterial tension is lowered by lethal doses, from paralysis of the vaso-motor centre in the medulla (see Butler's "Text-Book of Materia Medica, Therapeutics and Pharmacology"). Now, the action of alcohol in causing the heart to beat strongly and rapidly, at the same time dilating the blood vessels of the peripheries, renders alcohol one of the most valuable of diffusible stimulants, and this property of alcohol may serve to explain, in part, at least, its antidotal effect in cases in which a poisonous amount of carbolic acid has been swallowed.

But the purely local action of alcohol in the presence of carbolic acid also deserves consideration. "Alcohol, locally applied, prevents the caustic action of even pure phenol" (Butler). At 60 deg. F., 100 parts of carbolic acid should be liquefied by the addition of 10 parts of water, and should form a clear liquid with 30 or 40 of water; but, being insoluble in water, carbolic acid exists in these solutions in such a concentrated form as to be injurious to living tissues. On the other hand, carbolic acid is very soluble in alcohol, and the introduction of alcohol into the stomach of an individual who has just swallowed a strong carbolic acid solution may cause the poison to be partially dissolved out of the tissues of the stomach, and subsequently held in a more dilute and less irritating form, until it is vomited.

Beer-Yeast in the Treatment of Phlyctenular Ophthalmia.—

Starting from the idea that beer-yeast exercises an efficacious therapeutic effect in staphylococcic affections, Dr. Genestous, of Bordeaux, tried it in phlyctenular ophthalmia, which is also produced by staphylococci. Dry beer-beast, in doses of sixty grains a day for an adult and thirty grains for a child (given in two cachets, one at the beginning of each principal meal), was tried in twenty-five cases of phlyctenular ophthalmia. The ordinary local treatment, viz., atropine solution, ung. hydrarg. oxid. flav., etc., was continued. However, on each occasion when the internal use of beer-yeast was essayed, a notable improvement was immediately observed in the patient. In some cases the ocular affection, which had proved rebellious to local treatment alone, only yielded after beer-yeast had been administered internally.

Hydrotherapy in the Treatment of Tetanus.—Dr. Sadger (*Zentralb. für d. Gesam. Therapie*, November, 1904, p. 563) describes some extraordinary results which he obtained in a case of tetanus from the use of hydrotherapy. Hydrotherapy is an old remedy in such cases: Ambrose Pare cured soldiers of tetanus by causing them to be covered with hot manure, thereby producing excessive perspiration. Dr. Sadger placed his tetanic patient for three hours in a hot bath, until abundant perspiration had resulted; afterwards in a luke-warm bath, cold water being syringed over the nape of the patient's neck. Afterwards the patient was wrapped in a wet sheet. The hot bath was then resumed, and

the remaining treatment, in the order mentioned, was kept going incessantly for ninety-six hours. In twenty-four hours lock-jaw had disappeared; in forty hours the tetanic cramps had gone. As a matter of precaution this treatment was continued, and the patient was completely cured in ninety-six hours. There was no relapse.

Myositis Caused by Gonococci.—In the Johns Hopkins Hospital Bulletin, 1904, n. 165, p. 165, a very interesting report is given of the strange outcome in the case of a woman, thirty-two years of age, who for many years had been a sufferer from leucorrhœa. About two weeks before entering the hospital she noticed a swelling in the calf of the right leg, and also a second one in the sacro-lumbar region. Each of these swellings was as large as a hen's egg. On incision each swelling proved to be an intramuscular abscess. A bacteriological examination of the pus taken from these abscesses was made by Dr. L. Haskell, and revealed the presence of the gonococcus.

Thermogenesis in Man after Baths and Douches at Different Temperatures.—Experiments made by Ignatowski (*Arch. f. Hygiene*, t. li., p. 1., 1904) to show the influence of cold baths or douches, confirm the experiments of Lefevre. Thus an individual who, before entering the bath, showed, by the anemocalorimeter, less than two calories a minute, showed twenty-eight a minute after he had been immersed in a bath at 62 deg. F. for two and one-half minutes, and his rectal temperature rose 7-10 deg. F. But this enormous elevation lasted but a short time, and during the ensuing minutes, when the bath was endurable at 77 deg. F., thermogenesis was less excessive. After the cold bath there are two periods observable in the bather, a primary period, which varies according to the lowering of the temperature of the water in the bath and the reactive power of the bather, and which may last over two hours. During this period the losses indicated by the calorimeter indicate a diminution of radiation, and as the central temperature of the body is also lowered, there is a diminished production of heat, this diminution arising from the action of the temperature of the bath or douche. During the second period, which may be very long in duration, and the limits of which are not precisely marked, an increase of heat production is noted. After hot baths, on the contrary Ignatowski observed

an increase in the emission of caloric, represented principally by evaporation, which may be tripled in amount. Febrile persons treated with baths and douches behave generally like persons in health, the modifications being, however, more strongly marked in them than in healthy persons.

The Japanese Art of Ju-Jitsu.—So little is known in a practical way of the art of Ju-Jitsu (pronounced Jew-Jits), that an exhibition of it in some of the cities of Canada would not fail to be of great interest. In an editorial in the *British Medical Journal*, February 4th, 1905, a description is given of an exhibition of Ju-Jitsu, given at Chelsea Barracks, London, on January 27th. The programme included demonstrations in the art of falling, of how to upset an opponent by disturbing his balance, of how to throw an opponent, and concluded by bouts between the Japanese teachers and some young soldiers trained in wrestling. It appears that the light-weight men trained in Ju-Jitsu got the better of men thrice their strength and weight, young English, Irish and Scotch soldiers of fine physique and plenty of pluck being disposed of one after the other by the Japanese featherweights. We also gather from the above-mentioned article that Ju-Jitsu is not wrestling pure and simple, though the literal meaning of the words is "muscle-breaking." It is rather the art of defeating brute strength by stratagem, "*arte non vi*," an art which enables light-weight men or women to protect themselves against a powerful antagonist, provided he does not know this form of the science of self-defence. To save one's strength, to defend one's self by sleight of body, while drawing from an opponent all his strength—this is the art of Ju-Jitsu. The main object of a student of Ju-Jitsu is by stratagem to render an antagonist helpless without using up his own strength. An effort is made to get an opponent into some position in which advantage can be taken of some simple fact in anatomy to paralyse resistance. The school-boy trick of suddenly twisting another boy's arm behind his back and thus disabling him may be compared to some of their sleights-of-hand. But they have elaborated a complete system, and work not only with their hands, but with their arms, their feet and their legs. They have also made a study of the balance of the body, and can take advantage of the momentary failure of poise in an

opponent to lift him from the ground and literally throw him over their head. This is, of course, not altogether free from danger to limb, and even to life, so that the art of falling and the art of throwing are two of the most important things to be learned. The student of Ju-Jitsu is also a hygienist. He eats hardly any meat, and lives chiefly upon rice, fish, vegetables and fruit, while he drinks much water, on an average a gallon of water in twenty-four hours. Regular bathing is also one of the first principles of his physical training, in order that external impurities may be constantly removed. He goes out early in the morning and breathes in long draughts of fresh air. As the windows of Japanese houses consist of thin, porous, oiled paper, through which the air penetrates, arranged to slide back, and as these windows are open night and day, the ventilation is perfect. This system of physical training is begun at an early age, and is continued pretty well all through life, so that the student of Ju-Jitsu attains an extraordinary perfection of physique. As a consequence, long illnesses and bodily weakness are considered to belong to old age, and those wanting in strength are looked upon as freaks.

Eberth's Bacillus in the Urine of Typhoid Fever Patients

—Dr. Albert Mahaut, in a thesis published at Lyons, 1904, gives the results of his observations on the urine of typhoid fever patients. He found Eberth's bacillus in the urine of these patients during convalescence, as well as the febrile period of the disease in 38.5 per cent. of the cases. The presence or absence of the Eberth bacillus does not seem to bear any relation to the gravity of the disease, to the albuminuria or the rose-colored spots. This bacilluria is explained by the presence of the Eberth bacillus in the blood of the general circulation, and the ease with which the bacillus vegetates in the bladder of the patient, as the author's experiments go to show. The Eberth bacillus appears in the patient's urine on the ninth day, and it may be discovered fifteen days after the commencement of the apyretic period. Internal antiseptics do not cause it to disappear. Lotions of permanganate of potassium have given good results in this author's experience. He thinks that it is necessary to disinfect the urine of a typhoid fever patient, and also the water of his bath.

J. J. C.

PERSONALS.

Dr. E. HERBERT ADAMS and Dr. ARTHUR W. MAYBERRY have returned to Toronto after a mid-winter visit to Jamaica, where they were investigating for themselves the climatic and sanitary and other advantages of the West Indies as a winter health resort.

Our mutual friends, the Thomas Pharmacal Company, of New York, have moved from 50 West Broadway to the new Lilly Building at 203 Fulton St. This firm has, during their ten years of business life, become favorably known to the medical profession of America through their splendid preparation Eulexine, which is specially advertised for the treatment of diabetes. This firm purposes to add one or two new therapeutic specialties to their list during the coming year. We commend their preparations to our readers.

Dr. J. MACDONALD, JR., has severed his connection as manager and managing editor of the *International Journal of Surgery*, with which he has been associated for the past fourteen years. This move was made for the purpose of enabling him to publish an independent, practical, surgical journal under absolute professional control and along such lines as will best serve the interests of the general practitioner. He has purchased all rights in the *American Journal of Surgery and Gynecology*, and with the April number this journal, thoroughly modernized and largely increased in circulation, will be issued from New York as the *American Journal of Surgery*. In this undertaking, Dr. MacDonald will have the contributory co-operation and support of such well-known surgeons and teachers as: Robt. T. Morris, Prof. of Surgery, N. Y. Post-Graduate School; Howard Lilienthal, Visiting Surgeon, Mt. Sinai Hospital, N.Y.; J. P. Tuttle, Prof. Rectal Diseases, N. Y. Polyclinic; Jas. T. McKernan, Prof. Nose and Throat, N. Y. Post-Graduate School; Sam'l G. Gant, Prof. Rectal Diseases, N. Y. Post-Graduate School; Augustin H. Goelet, Prof. Gynecology, N. Y. Clinical School of Medicine; C. Wendell Phillips, Prof. Diseases of the Ear, N. Y. Post-Graduate School; Ferdinand C. Valentine, New York, who, with others, will assist him in making a practical surgical journal, which, in point of interest and usefulness will represent all that years of experience, backed by ample capital, can produce. We wish Dr. MacDonald every possible success, and feel, from our personal acquaintance with him and knowledge of his indomitable energy, that he will assuredly win out in his new venture.

News of the Month.

A MEASLES HOSPITAL IN THE NEAR FUTURE POSSIBLE.

A HOSPITAL for the treatment of patients suffering from measles will in all probability be erected in the immediate future in the vicinity of the Isolation Hospital.

The question of hospital treatment for that class of patients was discussed recently at a conference in the Mayor's office, which was attended by his Worship the Mayor; Dr. Sheard, Medical Health Officer; Mr. J. W. Flavelle, Chairman of the General Hospital Board of Trustees; Dr. O'Reilly, Medical Superintendent, and others.

The question of hospital accommodation generally was discussed, particular attention being given to what should be done for the hospital treatment of patients suffering from measles, the General Hospital authorities having some time ago passed a resolution shutting out that class of patients. It was finally thought advisable to erect a building for that special purpose. The question will be further discussed at another meeting.

NEW WING OF THE WOODSTOCK HOSPITAL.

THE new wing of Woodstock Hospital was opened on February 14th, with appropriate ceremonies. There was a large attendance, the medical profession of the district being well represented. Mr. George C. Eden, President of the Hospital Trust, presided, and the building was formally declared open by Mr. J. W. Flavelle, of Toronto, who spoke in high terms of praise of the generosity and enterprise of the citizens of Woodstock and Oxford. Dr. O'Reilly, Superintendent of the Toronto General Hospital, also offered his congratulations, and expressed the hope that before long the institution of which he was the head might have as good an operating room as that which Woodstock Hospital had now to offer. It could have no better. Other congratulatory speeches were delivered by Mayor Scarff, ex-Mayor White and County Councillor Virtue.

The new wing, which doubles the capacity of the hospital,

has been erected at a cost of \$16,000, to which the city, county and township councils, as well as individual citizens, have contributed. The surgical ward has been fitted up by Mr. John D. Patterson, of Woodstock, and is as complete as that in any hospital on the continent. A ward has been furnished by Miss S. S. Patterson, in memory of her brother, the late Alfred Patterson, and another by Mr. John Whicher, of Caledonia, to be known as the Lilian Whicher ward, after his daughter.

During the afternoon it was announced that Mr. Chester D. Massey, of Toronto, had subscribed \$1,000 to the building fund.

The members of the Ladies' Auxiliary to the hospital, who have been very active in connection with the enterprise, served refreshments at the close of the proceedings. The hospital has been in existence since 1895, and since that time its usefulness to the city and district has become each year more generally recognized. Under its present efficient superintendent, Miss Francis Sharpe, its work has been brought to a high state of efficiency.

ITEMS OF INTEREST.

The "Grand Prix" Awarded E. Merck, Darmstadt.—It will interest our readers to know that E. Merck, of Darmstadt, Germany, has won, not only the Grand Prix, but, in addition, a gold medal at St. Louis Exhibition, 1904.

Cape Town International Industrial Exhibition.—A Grand Prix (highest award) has been conferred upon Burroughs Wellcome & Co. for the pharmaceutical and other fine products exhibited by them at the Cape Town International Exhibition.

The Denver Chemical Co.'s New Booklet.—We have just received an exceedingly neat booklet from the Denver Chemical Mfg. Co., of New York City, the manufacturers of Antiphlogistine, which goes into the details of this preparation and its varied uses. It is a credit to the printer's craft, and worth sending for.

The Proposed Dinner to Professor Osler.—It has been thought wise, for the present, at least, to postpone indefinitely the dinner proposed in honor of Dr. Wm. Osler ere he sails for England. Dr. Osler finds that he will only be able to spend about a day in Toronto, and that, as far as he can now see, it will be a Sunday. The banquet, therefore, has been called off, though the committee hope that at some future date the Toronto profession may be enabled to do honor to so worthy a *confrere*.

Gold Medal at the Cape Town International Exposition, 1904-5.—The well-known firm of C. J. Hewlett & Son, 35 to 42 Charlotte St., London, E.C., have had the honor of having awarded them a gold medal for their standardized tinctures, drugs and pharmaceutical preparations at the Cape Town International Exhibition, 1904-5.

New York Polyclinic Medical School and Hospital.—The President of the Faculty of the New York Polyclinic Medical School and Hospital, on Tuesday, December 20th, gave a reception to the members of the teaching staff, the board of trustees, and many of their friends, to celebrate the event of the liquidation of a second mortgage of about \$40,000, which was accomplished by the personal donations of the members of the staff. This action was applauded by a member of the board of trustees in a material way by a personal donation of \$20,000. It is hoped that this generous contribution will be productive of other donations, and that the new building fund will soon be of substantial size.

Venereal Diseases.—Geo. M. Kober, Washington, D.C. (*Journal A M. A.*, March 11th), points out the terrible prevalence of venereal diseases among the general population. He quotes statistics showing that in large cities from 12 to 15 per cent. of the population are afflicted with syphilis, and a still larger proportion with gonorrhea. While he does not think that public regulation of the evil is advisable in this country, he maintains that the state should enforce laws against solicitation and seduction, and that health boards should recommend the enactment of sanitary regulation of all occupations by which extragenital syphilis may be conveyed, and special examinations should be made of wet nurses, etc. He believes that these measures would be of great educational value and suggests that a general educational campaign be instituted against these disorders.

A Typographical Error in our March Issue.—By an unfortunate omission of one letter from a paragraph appearing on page 189 of our March number (an issue for which we have had a specially large demand), attention was called to page xxxi in place of lxxxix, where appeared a letter from Dr. Murray McFarlane, of Toronto, addressed to The Lactoglobulin Co., of Montreal, and which explains itself. In order that no further misunderstanding may occur, we reprint here a copy of the communication in question: "THE LACTOGLOBULIN Co.—*Gentlemen*,—It is with great pleasure that I give unsolicited testimony to the merits of Lactoglobulin as a food product for invalids. In several cases it has given such satisfaction that I feel it should be accorded an extended trial by all physicians. In cases of tubercular laryngitis,

where the pain upon swallowing food is so intense, it is readily taken, owing to its bland and mucilaginous character. It has in my hands made good the claims set forth as to keeping up the weight and strength when taken according to directions. This is the first time that I have ever written regarding any manufactured product, but I feel that the merits of Lactoglobulin deserve it. Yours truly, MURRAY MCFARLANE."

Some of the Recent Works of Bailliere, Tindall & Cox, London, Eng.—Rose & Carless' "Manual of Surgery." (University Series.) Fifth edition, with new illustrations, etc. Price 21s. net. "The best Surgery for students."—*Lancet*. MacNaughton-Jones' "Diseases of Women." Ninth edition in the press. "The best text-book on the subject published in recent years."—*Brit. Med. Jour.* Dawson Turner's "Medical Electricity, Rontgen Rays and Finsen Light and Radium Treatment." Fourth edition. 10s. 6d. net. Profusely illustrated. "Written by an author who is thoroughly in touch with his subject."—*Lancet*. Stewart's "Manual of Physiology." (University Series.) Fourth edition, with 5 colored plates and 365 illustrations. Price, 15s. net. "An ideal manual."—*Brit. Med. Journal*. "Surgical Diseases of the Stomach." By Prof. Mayo Robson and B. G. A. Moynihan, F.R.C.S. Profusely illustrated. New edition in the press. Price, 15s. net. Lindsay on "Diseases of the Lungs and Heart." New work. Price, 9s. net. Difficulties of diagnosis have received special attention. The book is thoroughly practical and the clinical standpoint adopted. Prof. Politzer's "Text-Book of Diseases of the Ear." Fourth edition. Authorized translation, with original illustrations. Royal octavo. Price 25s. net. "The most valuable book of reference on aural surgery."—*The Lancet*. Monro's "Manual of Medicine" (University Series.) Just out. Pp. 922, 38 illustrations. Price, 15s. net. "Will make room for itself by its own intrinsic merits."—*Med. Press*. Mummery's "After-Treatment of Operations." Just out. 230 pages, illustrated. Price, 5s. net. Mayo Robson's "Disease of the Gall-Bladder and Bile Ducts." Third edition in the press. Just out. Price, 15s. net. Brouardel and Benham's "Death and Sudden Death." Just out. Second edition, 350 pages. Price 10s. 6d. net. "Aids to Chemistry," one vol., cloth 4s. 6d. "Aids to Physiology," one vol., cloth 3s. 6d. "Aids to Surgery," one vol., cloth, 4s. 6d. "Aids to Sanitary Science," one vol., 4s. 6d. "Aids to Forensic Medicine," one vol., 2s. 6d. "Aids to Obstetrics," one vol., cloth, 2s. 6d. "Aids to Gynecology," one vol., 2s. 6d. "Aids to Practical Dispensing," cloth, 2s. 6d. "Aids to Materia Medica," three parts, 2s. each. "Aids to Medicine," two vols., cloth, 4s. 6d. each. "Aids to Mathematics of Hygiene," one vol., 2s. 6d. "Aids to Ophthalmic Medicine and Surgery," cloth, 2s.

6d. "Aids to Dental Anatomy and Physiology," cloth, 2s. 6d.
 "Aids to Diseases of Children," cloth, 3s. 6d.

The Cause and Prevention of Appendicitis.—Under this heading there appears in the *Nineteenth Century* for January an article which professes to have solved the problem of the etiology of appendicitis. The author of this communication strongly denounces the use of "Hungarian waters, aperient salts, and liver pills." He then remarks: "It is natural to ask what have aperient waters and salts to do with appendicitis? To that a very true answer is that the action of saline purgatives is to cause a flow of water through the intestinal canal. This passes off quickly, but alas! it leaves the solid portions to accumulate in the cecum at the right side, near the appendix, where the small intestine ends and the large one commences. The solid portions left in the colon become more and more putrid, cause obstruction, and infect the appendix." The meaning of the above sentences is somewhat ambiguous, but we conclude that it is intended to convey the idea that those individuals who habitually take laxatives to insure an action of the bowels are liable to fecal collections in the cecum, which produce inflammation of the mucous membrane of the bowel and so cause appendicitis. We venture to express an emphatic opinion that there is no basis for this statement, either on pathological or clinic grounds. Any practitioner who has had experience in the post-mortem room knows that the contents of the small intestine are liquid, and it is not until the colon is reached that the fecal matters become solid. It is most unusual to find solid fecal accumulations in the cecum; yet this condition is distinctly implied in the remarks which we have quoted above. Further, in post-mortem examinations of those who have died from appendicitis, although small concretions may be found in the appendix, no large mass is found in the colon, as would be the case if the etiology which we are considering were the correct one. Such a causation of appendicitis is also contradicted by clinical experience. The age at which appendicitis usually occurs ("System of Medicine," by Prof. Clifford Allbutt, Vol. iii., p. 896) is from ten to twenty years, which is not the period of life at which such purgatives are generally habitually taken. Again, constipation is more frequent among women than among men and the former are more addicted to the habitual use of purgatives, yet appendicitis is nearly four times as common in men as it is in women. It is certainly desirable to overcome constipation by natural means, notably by diet, if possible. But there are numerous cases in which artificial stimulus to the intestines is absolutely necessary, and in such circumstances "aperient waters and salts" are most valuable remedies.—*Lancet*, London, Feb. 11th, 1905.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

THE THERAPY OF ANTI-STREPTOCOCCIC SERUM.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY :

DEAR SIR.—We are mailing you, under separate cover, a brochure styled "A Contribution to the Therapy of Anti-streptococcic Serum," in which is included everything that is known at the present regarding its usefulness in surgery and medicine.

It is unfortunate that this serum, together with anti-pneumococcic serum, were introduced as specific treatments, and the medical profession were led to believe that they were as specific in their action as diphtheria antitoxin has proven to be in diphtheria. Experience with these serums has proven that this is not to be expected.

The profession are using these serums more generally and with a better appreciation of how to employ them, viz., dosage and early administration, with more satisfactory results. Preventive medicine is slowly but surely becoming recognized as hygienic conditions improve and the value of these serums as a prophylactic agent become known.

Medical treatment for pneumonia has not proven a success, as is evidenced by the ever-increasing number of cases and the largely increased mortality. Still, no one thinks of not using medical treatment in this disease. Anti-pneumococcic serum, while not a specific, when used early in attacks of pneumonia yields better results than any medical treatment. Its employment does not interfere with other remedies, and the treatment itself is perfectly harmless.

We are satisfied when the medical profession realize these facts the serum treatment will be more generously employed, since every physician is called upon to resort to every known method of treatment in saving of human life, and particularly in a disease where medicine has proven itself so unequal to its treatment.

We shall be glad to have you carefully read the brochure sent you, realizing that it is to the medical journals largely that the medical profession look for their advanced teaching in the practice of medicine. You will also note the valuable three-color prints showing the different types of diphtheria, which illustration we believe will be of service to the practitioner in impress-

ing upon him the importance of thorough examination of the nose and throat in all cases, or suspected cases, of diphtheria.

Very truly yours,

H. K. MULFORD COMPANY,

Milton Campbell, *Pres.*

[We have read with pleasure the brochure above referred to and feel that we cannot do better than advise each and all of our readers to send for a copy for themselves.

Ophthalmia Neonatorum.—E. Jackson, Denver (*Journal A. M. A.*, March 11th), holds that rigid cleanliness, while it will greatly diminish the number of cases of blindness from this cause, will not always prevent it, and that the Crede method, while efficient, sometimes causes irritation. He sees some hope in the use of some of the less irritant silver salts than the nitrate, but believes that we need more experience in their use before we can give them the same confidence. Even in case of actual purulent disease, careful treatment will usually prevent blindness. He thinks that social conditions favoring or opposing the spread of gonorrhea are more important than legislative measures aimed directly at purulent conjunctivitis, and that gonorrhea is a malignant, contagious disease, and should be publicly recognized and dealt with as such in all its clinical manifestations.

Myxedema and Diabetes Mellitus.—A. A. Strasser, Arlington, N.J. (*Journal A. M. A.*, March 11th), reports the case of a child, eight years old, in whom the characteristic symptoms of myxedema appeared after weaning. The thyroid treatment was instituted with marked improvement in the symptoms, but diabetes intervened and it was discontinued, not because it was considered responsible for the intervening condition, but to eliminate it as a possible factor. The case was very carefully studied as to its metabolism; the child improved greatly in its mental symptoms as the diabetes progressed, but finally died in coma and convulsions. The author discusses the case with special reference to the effect of the diabetes on the myxedema, and considers the case as absolutely unique. Diabetes mellitus itself is not so rare in children as was formerly thought, but its occurrence in myxedema with the apparent marked effect on the latter condition here observed has not been reported heretofore. In a supplementary note he refers to two somewhat similar cases reported by Dr. Alfred Gordon in *American Medicine*, Feb. 6th, 1904, but he does not agree with the optimistic Gordon's views as to the prognosis in such cases.

Obituary

DR. THOMAS H. MANLEY'S DEATH.

THE news of the recent death of Dr. Thomas H. Manley, of New York City, came as a sudden and most painful shock to his many friends in Canada.

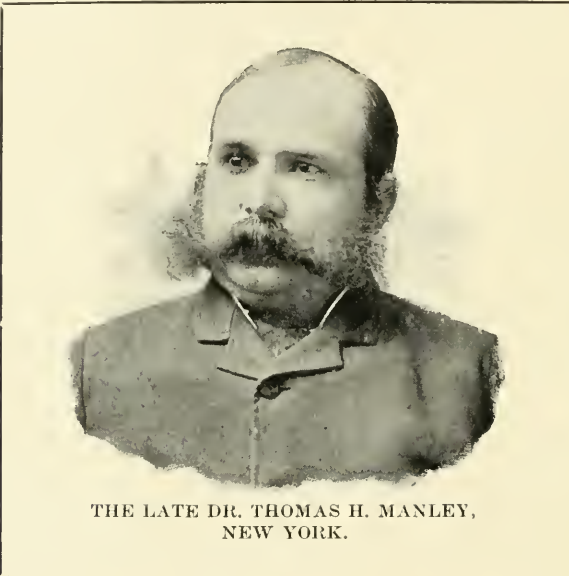
Only a few months ago the doctor visited Lowell, and at that time was the picture of health, but on New Year's Day he contracted a severe type of typhoid pneumonia, which was more than his strong physique could withstand, and finally, after a hard struggle for life, he succumbed to the inevitable and passed away on January 13th. Everything that could be done by means of medical skill was tried to save this man's life. On hearing of his serious condition, the most eminent and learned members of the medical profession of the United States rushed to his bedside and exhausted all known skill to combat the terrible diseases. In this they were successful as far as the pneumonia was concerned, but there were kidney and other complications, which his enfeebled system could not resist, and finally, after a most heroic struggle, he yielded most cheerfully to the will of his Creator.

Thomas H. Manley, A.M., M.D., was born in the town of Tewksbury, fifty-four years ago. He received his early education in the district school of his native town, and at the public schools of New York City. Owing to his father's death, which occurred when young Manley was a mere boy, he was obliged to go to work at an early age, to assist the other members of the family. Being of an active and ambitious nature, he devoted his evenings and every spare moment to the perusal of his books, and in due course of time he entered the office of the late Dr. Plunkett, of this city, to begin the study of medicine. Afterwards he entered the University of the City of New York, and in 1875 he graduated with high honors. Immediately following his graduation, he received a hospital appointment in that city, and after a most successful term of service in the large hospitals of the metropolis he located in Lawrence, Mass., where he soon built up a large and lucrative practice. But anxious for a larger surgical field, he returned to New York after a few years and began the practice of surgery as a specialty.

There he began the foundation of the work that has since

made him famous. He was appointed visiting surgeon to the Harlem Hospital and in the various city hospitals on Blackwell's Island. For years he studied and labored incessantly at his chosen profession, until finally he became master of the science and art of surgery. Not content with the knowledge of his vernacular tongue he took up the study of French and German, and soon became familiar with the choicest gems of foreign medical literature.

His ability was soon recognized by his professional brethren, and gradually he was admitted to membership in the foremost and most eminent medical associations in the land.



THE LATE DR. THOMAS H. MANLEY,
NEW YORK.

He was a member of the New York County Medical Society, of the New York State Medical Association, of the American Medical Association, of the American Surgical and Gynecological Society, of the International Association of Railway Surgeons, of the Medico-Legal Society, and of the New York Academy of Medicine. At the various meetings of these great medical organizations he was ever prominent with original articles and always took a leading part in the discussions on the principal topics of the medical world. He contributed largely to the eminent medical journals of the country and held the position of editor of the Department of Surgical Pathology of THE CANADIAN JOURNAL

OF MEDICINE AND SURGERY, and, at the time of his death, was recognized as one of the best known surgical writers of America.

Of late he acquired much prominence as a teacher, he being Professor of Surgery in the New York Clinical School of Medicine and clinical instructor of the Metropolitan and Harlem Hospitals. He was the author of an excellent book on hernia, and had almost completed a grand volume on surgery when his untimely death took him from our midst.

The New York daily press and the medical press of this broad land have been a unit in sounding the praises of Dr. Manley.

He was a thoroughly good Christian man—a man of strong personal character, of very forcible convictions, and charitable to a fault. His early demise has been a great loss not only to the people of New York, but to the community in general.

The career of Dr. Manley is a grand model for all our young men to imitate. Beginning life as he did, a poor boy, fatherless at an early age, and struggling hard in the battle of life to help his poor mother and family, and finally reaching the very pinnacle of fame—all prove what can be accomplished by honesty, sobriety, zeal and a persevering application to duty.

Dr. Manley leaves a widow and four daughters, all of whom are well known in their native city.

The Physician's Library.

BOOK REVIEWS.

Saunders' Medical Hand-Atlases.—Atlas and Epitome of Operative Ophthalmology. By DR. O. HAAB, of Zurich. Edited, with additions, by GEORGE E. DE SCHWEINITZ, M.D., Professor of Ophthalmology in the University of Pennsylvania. With 30 colored lithographic plates, 154 text-cuts, and 377 pages of text. Philadelphia, New York, London: W. B. Saunders & Co. 1905. Cloth, \$3.50 net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto

Prof. Haab's "Atlas and Epitome of Operative Ophthalmology" is no exception to the comment we have now made several times in reviewing this really splendid system of atlases, viz., that we don't know of any series of books published in recent years which give such a wealth of information in such limited space. Prof. Haab's series are thorough and complete, one of their best points being that they are written in such a manner as to be of as much benefit to the ordinary practitioner as to the specialist, a point not always considered by authors of books devoted to some special subject.

The Medical Examination for Life Insurance and Its Associated Clinical Methods. With chapters on the insurance of sub-standard lives and accident insurance. By CHAS. LYMAN GREENE, M.D., St. Paul, Professor of the Theory and Practice of Medicine in the University of Minnesota, etc. Second edition, revised and enlarged, with 99 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1905.

Five years have elapsed since Dr. C. L. Greene gave to the profession the benefit of his work on medical examinations and life insurance. To-day he comes back again with practically another book, so thoroughly has he revised almost every chapter. A medical examiner for a large life insurance company occupies a most responsible position, as upon his opinion as to each and every applicant's physical condition hangs the safety of what altogether amounts to millions of dollars invested. How important, therefore, is it that a trusted officer such as he should have at his elbow the very best works of reference dealing with

life insurance examination. After carefully looking over the author's book in its second edition, we feel that we can honestly recommend it as a reliable exposition of the subject, and one that ought to be found in the medical examination room of every life insurance company. It sells at \$4.00, and is worth that and more.

Bacteriology and Surgical Technic for Nurses. By EMILY M. A. STONEY, Superintendent of the Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill. Second edition, thoroughly revised and much enlarged by FREDERIC R. GRIFFITH, M.D., Surgeon, Fellow of the New York Academy of Medicine. 12mo volume of 278 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co. 1905. Cloth, \$1.50 net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

There have not been many books written for nurses, in fact, there is almost a dearth of such literature. Nursing has come to be an exceedingly important department in the treatment of a case, so that this book will be especially welcomed. It consists of two parts, the first containing five chapters devoted to bacteriology and antisepsis, and the second, seventeen chapters given over to surgical technic in its many different phases. The purchase of the book by every nurse will be money well invested.

Gynecology: Medical and Surgical. Outlines for Students and Practitioners. By HENRY J. GARRIGUES, A.M., M.D., Gynecologist to St. Mark's Hospital, New York City; Consulting Obstetric Surgeon to the New York Maternity Hospital; formerly Professor of Gynecology and Obstetrics in the School for Clinical Medicine, and Professor of Obstetrics in the Post-Graduate School and Hospital. With 343 illustrations. Philadelphia and London: J. B. Lippincott Co. 1905.

We have come across few works on gynecology which seem to us as suitable for use, especially by medical students, as the one under review. There is no dearth of books dealing with this important subject, but of course the majority are written for practitioners and do not deal with the essentials of gynecology from both the medical and surgical aspect. Dr. Garrigues' book, on the other hand, starts at the foundation with the correct methods of examination of the pelvis and abdomen, then takes up treatment in general, and follows up with diseases of the various parts of the female genital tract, *e.g.*, vulva, perineum, vagina, uterus, oviducts, ovaries, urethra, bladder, ureters, and finishes with diseases of the rectum and anus. Any operations

described are, of course, minor in character, and the book is worth purchasing, if for use by those who want a well-written outline of gynecology as a whole.

The Medical Review. 66 Finsbury Pavement, London, E.C.
Subscription, £1, post free, to any part of the world.

The rapid advance of modern medicine is accompanied by a vast and constantly increasing periodical literature. But the majority of the articles consist largely of common-place remarks, useless verbiage, old doctrine—stated far better in text-books—and crude and doubtful opinions. Much space also is devoted to topics so specialized that they have but little interest or value for the general practitioner. On the other hand, matters of great interest—exceptional and instructive cases, successful treatment by methods not generally known, and valuable observations on unrecognized aspects of disease, which would often solve the difficulties in the daily work of the practitioner—are scattered through the medical journals of the world and lost to the bulk of the profession.

Most journals, it is true, give, as secondary to their original matter, a few pages of brief abstracts of papers which are supposed to be the most important in their contemporaries. But the result is unsatisfactory. Such abstracts generally have an obvious and fundamental fault. Definite progress is not sufficiently distinguished from the indefinite, crude, and unproved opinions of individuals with which medical literature is so much encumbered. Or, again, too much knowledge is taken for granted, and subjects of interest only to the specialists are selected. A constantly changing kaleidoscope of so-called “views” and “conclusions,” devoid of both interest and utility, is presented to the practitioner. Further, want of discrimination in the selection of articles is associated with an equal want of discrimination in their summarizing. When, perchance, a valuable article is selected space is wasted on common-place remarks and bibliographical matter which do not in the least enlighten the reader, whilst the essential points are not fully and clearly set forth in due relation. Thus much of the utility and interest of the original is lost. As a result the ordinary epitome is worthless to the practitioner and is not taken seriously; often it is not even read.

Hence the need of a concise yet comprehensive review of the facts in medical literature that are really important. It is quite possible by the careful use of words and the suppression of all unessential matter to compress an article written with any definite object—and such alone is valuable—into a comparatively brief report, and yet to give a complete, readable, and satisfactory account of the subject, so that nothing of importance is lost, and,

often, in lucidity much is gained. In this manner, and in a clearer and more concise form than has hitherto been attempted, we endeavor to summarize all that is really important to the practitioner in the medical periodicals of the world, giving him proved facts and definite teaching, which bear upon his daily work, instead of vague, contradictory and ephemeral theories of no practical value.

In systematically recording new or not generally recognized important facts, and not mere opinions, the *Medical Review* differs from all other journals, epitomes and year books. In another respect, also, we have made a new departure in medical journalism. Our articles are not presented merely as isolated contributions; they are collated with one another, so that, as far as possible, medical progress is presented as an organized whole.

The large number of clinical illustrations published in the *Review*, about 300 annually, is a special feature. So also is the indexing. Each month a subject index of the contents is given, which is not merely a means of reference to the text, but a statement of all the important facts therein, *i.e.*, it is analytical. With each annual volume is issued an index which supersedes the monthly indexes and is constructed according to a homogeneous system. This greatly facilitates the use of the volume as a permanent work of reference and as an indispensable supplement to the text-books.

First Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum. By ANDREW BALFOUR, M.D., B.Sc., M.R.C.P. (Edin.) and D.P.H. (Camb.), Fellow of the Royal Institute of Public Health, Member of the Epidermological Society, Medical Officer of Health, Khartoum, and Sanitary Adviser to the Sudan Civil Medical Department. Department of Education, Sudan Government, Khartoum. 1904.

It was a noble act on the part of Mr. Henry S. Wellcome to equip the research laboratories at Gordon College, Khartoum, and present the same to the Sudan Government. The intentions of the donor were: (1) To promote technical education; (2) to promote the study, bacteriologically and physiologically, of tropical disorders; (3) to aid experimental investigation in poisoning cases; (4) to carry out chemical and bacteriological tests in connection with water, food stuffs, and health and sanitary matters.

This volume comprises a detailed report, from February 1st, 1903, to February 1st, 1904, of the work carried on in the laboratories, showing what measure of success has been met with. The laboratories at present consist of a suite of five rooms, *i.e.*, a

kitchen for the preparation of culture media and general rough work, separate bacteriological and chemical rooms, a chamber specially prepared as a photographic dark room and cold storage room, and a museum room. The report is full of interest, and it is to be hoped that a similar volume will be issued annually.

The Private Stable. Its Establishment, Management and Appointments. By JAS. A. GARLAND. Octavo, cloth, \$5.00 net. A new and enlarged edition of this invaluable book for all who have to do with horses. With over fifty full-page illustrations from photographs and additional cuts in the text. Little, Brown & Co., publishers, 254 Washington St., Boston, Mass.

To any and every lover of the horse, we say, unhesitatingly, purchase a copy of "The Private Stable." If you are anxious to know how a stable should be kept, what constitutes good taste as to fashion, etc., what your stable should cost you, the points of a horse, what kind of livery you should purchase for your servants, every detail as to correct harness, how to properly feed your stock, what constitutes conditioning, mouthing and biting a horse, hints on driving, and every possible minutia as to various traps "turned out" for the show ring, you will have to procure Mr. J. A. Garland's book. We don't think that we have ever come across so thorough a book and one so highly satisfactory to a horseman who desires to know what is right and what is wrong, as the one under review. It is worth just \$10.00 in place of \$5.00.

W. A. Y.

The Canadian Nurse.—We have received with pleasure the initial number of *The Canadian Nurse*, a quarterly journal for the Canadian nurses. Dr. Helen MacMurchy is the editor, and the business manager is Miss Christie. A half-tone of Miss Snively, the preceptress and friend of every graduate of the Training School for Nurses of the Toronto General Hospital, adorns the fly-leaf of the new magazine, a fitting tribute to her untiring zeal in the work in which she so delights. We wish Dr. Helen MacMurchy and her associates every encouragement, and we prophesy success for their bright and newsy little journal.

W. A. Y.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTERESTS OF
MEDICINE AND SURGERY

VOL. XVII.

TORONTO, MAY, 1905.

NO 5.

Original Contributions.

THE TREATMENT OF TUBERCULOSIS IN ONTARIO.

BY J. H. ELLIOTT, M.B.,

Physician-in-Charge, Muskoka Cottage Sanatorium, Gravenhurst, Ont.

WHEN requested by the editor of the JOURNAL to prepare an article upon what is being done in caring for the consumptive patients of the Dominion by the National Sanitarium Association, I felt that a short note with illustrative diagrams might prove more interesting to the busy practitioner than a longer paper, which might require more time in reading.

First, a word as to the Association itself. Organized in 1896, with the express object of founding sanatoria for the treatment of pulmonary tuberculosis, it has thus far erected two at Gravenhurst, with beds for 145 patients: The Muskoka Free Hospital for Consumptives, with seventy-five beds, and the Muskoka Cottage Sanatorium, with seventy beds, the latter for paying patients.

More than \$400,000 has been expended by the Association in the establishment and maintenance of these institutions and in the distribution of literature to aid in the fight against this disease. The money expended has been received from various sources, individual subscriptions and bequests, municipal and government grants, patients and others. The Free Hospital is maintained by voluntary contributions. No patient has ever been refused admission to the Free Hospital because of his poverty.

Over 1,500 patients have been cared for by the Association. The instruction of so many in the principles of hygienic living

and in the care of sputum has had its marked influence in assisting to lower the death rate from tuberculosis in Ontario.

No brighter, cheerier wards are to be found anywhere for the care of pulmonary cases, whether those of the Cottage Sanatorium, where each patient has his own room with its transoms, open windows, and hardwood floors, or those of the Free Hospital, with from two to eight beds in each, large, airy and flooded with sunshine.

Every visitor to these institutions expresses himself as surprised at the extent of the buildings, their equipment and surroundings being quite beyond all expectations. There is a largeness about them unsuspected, and with their brightness, sur-



ADMINISTRATION BUILDING, MUSKOKA COTTAGE SANATORIUM.

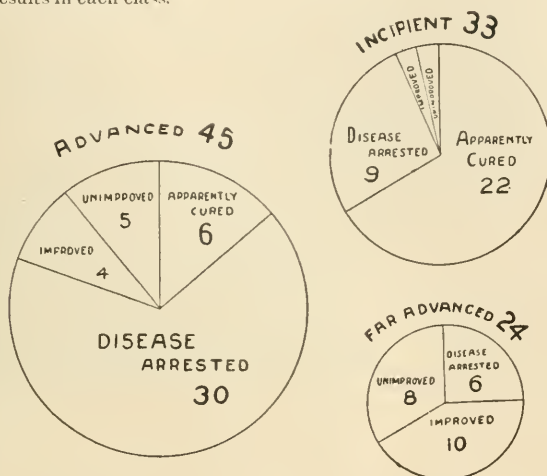
rounded by beautiful park land and situated on the shores of Lake Muskoka, they seem placed in an ideal spot.

For statistical purposes patients are classified on admission as incipient, advanced, or far advanced, according to extent and character of the lesion; on discharge, as apparently cured, disease arrested, much improved, unimproved (stationary and failed).

The following charts, with a short explanatory text, show graphically the results of treatment. The results are not what *may* be accomplished, but what *has been* accomplished. A large proportion of patients, when their disease is well under arrest, wish to leave, to carry out the out-of-door life at home, and when feeling perfectly well, though cough is still present, this is quite natural, considering the long time necessary in the average case to secure apparent cure. Many of those classified with disease

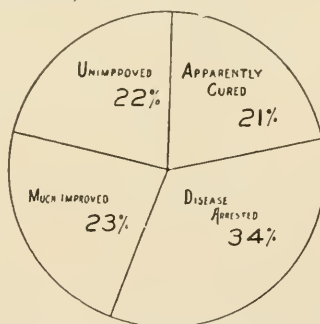
arrested would go on to apparent cure did they remain a sufficient length of time.

Muskoka Cottage Sanatorium—102 cases discharged, October 1st, 1901 to September 30th, 1902. Results in each class.



The earlier the treatment of the consumptive is begun, the greater are the chances of recovery. Of thirty-three incipient or early cases, twenty-two, or 67 per cent., were apparently cured; nine, or 27 per cent., had their disease arrested; one was much improved, and only one failed to improve. Compare this with the forty-five advanced cases. Of these only six, or 13 per cent., were apparently cured, while of the far advanced in consumption none were cured, but two-thirds made great improvement under treatment.

Muskoka Cottage Sanatorium—Aggregate results of 7 years of all classes admitted. (In percentages.) Total admissions, 934.



Many of these were advanced and far advanced cases, as follows:

Incipient	Advanced	Far Advanced
29%	42%	29%



ONE OF THE BRIGHT, CHEERY WARDS OF THE MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES.



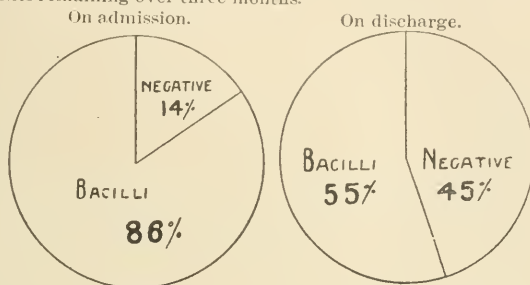
INTERIOR VIEW ROOFED TENTS, MUSKOKA COTTAGE SANATORIUM.

Average days' stay, 138. Average gain in weight, twelve pounds.

In seven years (1897-1904) 934 patients were under treatment. The results of treatment are shown in the above chart. Note the average gain in weight of twelve pounds, with an average stay of a little over four months.

Many patients gain from twenty to twenty-five pounds, and a number each year gain thirty-five to forty-five pounds. One patient gained seventy-three pounds in a stay of ten months.

Muskoka Cottage Sanatorium—Effect of treatment as to the presence or absence of Bacilli in patients remaining over three months.

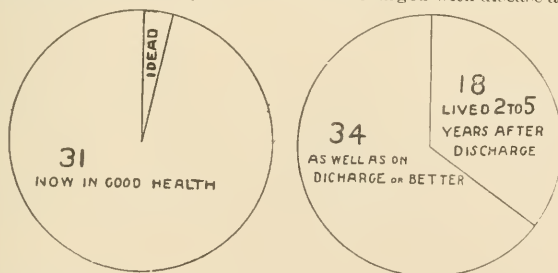


No patients are accepted for treatment other than those suffering with tuberculosis. In doubtful cases close observation is made, and if necessary the tuberculin test applied. 86 per cent. of all those admitted have tubercle bacilli in their sputum, as indicated in the above chart, while at time of discharge, of those treated over three months, 55 per cent. have bacilli, *i.e.*, 31 per cent. of those treated lose the bacilli from their sputum, or forty-five per cent. of those admitted, showing bacilli, lose them under treatment.

Muskoka Cottage Sanatorium—Present condition of patients discharged 4 to 6 years ago. (September, 1897 to September, 1899 inclusive.) Average 5 years.

32 discharged apparently cured.

52 discharged with disease arrested.



The question is constantly asked, Is a patient ever really cured? Is he not usually as bad as ever after his return to his home or to work? Patients whose disease is arrested or who are improved may relapse, but if apparently cured and living under proper conditions of life there is little chance of subsequent illness. The above chart shows that of thirty-two patients dis-

charged, apparently cured, in 1898 and 1899, thirty-one were in good health after the lapse of five years. The cured patients are living and working in all parts of Canada and the United States.

In the following table is shown the mortality in Ontario from consumption since 1897, the year in which such statistics were first available. In corresponding columns the growth of the Association work is noted. There can be no doubt but that the lowered death rate is due, to a great extent, to the wide-spread influence of the sanatorium work, and the fact that these 1,500 patients have gone back to their homes full of the knowledge of the causation and prevention of the disease.



ADMINISTRATION BUILDING, MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES.

It is to be noted that at the time the Association was beginning its work the death rate from tuberculosis was steadily increasing.

Year	Deaths from Tuberculosis	Deaths per 1,000 population living	
1896	None available		National Sanitarium Association formed.
1897	3,154	1.4	Muskoka Cottage Sanatorium opened, 35 beds.
1898	3,291	1.5	Beds increased to 50. 156 patients treated to date.
1899	3,405	1.5	310 patients treated to date.
1900	3,484	1.6	443 patients treated to date.
1901	3,243	1.4	Beds increased to 60. 723 patients treated to date.
1902	2,694	1.2	Free Hospital for Consumptives opened with 75 beds. 938 patients treated to date.
1903	2,722	1.2	M.C.S. beds increased to 70. 1,262 patients treated to date.
1904			1,587 patients treated to date.

For the care of the consumptive poor in the far advanced stages there has been recently opened the Toronto Free Hospital for Consumptive Poor, near Weston, with forty beds. This, with the work of the National Sanitarium Association at Gravenhurst, provides 185 beds for consumptives in Ontario, 115 of which are for the poor, or those able to pay only a small sum towards their maintenance.

A CASE OF MULTIPLE SEBACEOUS CYSTS.

BY ALEXANDER McPHEDRAN, M.B., TORONTO.

THE following case presented such a vast number of sebaceous cysts that it is an extremely rare, if not an unprecedented, one. There are a few cases on record in which there were from 132 to 250 tumors present,* and Chiari reports one in which several hundreds were scattered over the general surface.†

The number of cysts in the following case probably far exceeds even that of Chiari's:

A. D., aged twenty-five, a healthy man without anything of moment in either his family or personal history. His skin affection was first noticed during adolescence, no attention, however, being paid to it for some years. It developed gradually and attracted attention through the occurrence of acne and the formation of large pustules, which occurred with increasing frequency. The illustrations show the wide distribution of the lesions, but convey a very inadequate idea of their number, as the great majority of them were too small to show in the photograph, or even to be noticeable to the eye. They could be felt as nodules beneath the skin, varying in size, the smallest being barely palpable, and the largest fully two centimetres in diameter. On the body they were so numerous and closely set that the point of the finger could scarcely be placed on the trunk without touching one or more. Over the larger ones the skin was usually closely adherent, to some only loosely. The small nodules were, as a rule, deeply placed and only attached to the superjacent skin by an ill-defined strand of fibrous tissue, doubtless the obliterated duct. The contents of the smaller and of many of the large nodules consisted of thick, sebaceous material that exuded in a white, ribbon-like form through the linear puncture made with a bistoury. In some of the larger nodules the contents were partly sebaceous and partly a yellow oil; in a few they consisted wholly of oil. None of the cysts were pedunculated, but as they grew large, one here and there of the older ones became inflamed. The exudate into the periphery soon became purulent, and in a short time destroyed the capsule of the cyst, converting the whole into a bleb of pus in which the sebaceous contents became liquefied. The wall of the bleb usually sloughed, leaving a large, ulcerated surface, which healed with a broad, deep scar.

* Jamieson, *Edinburgh Med. Journal*, Sept., 1875, p. 223. Maclaren, *Edinburgh Med. Chir. Soc'y Trans.*, 1888, p. 77. Politzer, *Jour. Cutan. and G.-U. Diseases*, 1891, p. 281.

† Chiari, *Zeitschrift für Heilkunde*, 1891, Vol. xii, p. 189.



—By permission of the *American Journal of Urology*.

As the cysts were so numerous, an attempt to dissect them out seemed futile, so each day a number of the larger cysts were freely incised, the contents pressed out, and, if possible, the cavity curetted, or swabbed out with carbolic acid. This was a painful process, and, consequently, only a few cysts could be treated at one time. In not a few the treatment was unsuccessful, and required to be repeated. At the same time the acne was vigorously treated, and the general surface thoroughly cleansed daily to lessen the liability to infection of the glands and cysts, and it was rubbed to stimulate the circulation so as to improve the nutrition of the skin.

After two months' stay in the hospital he left very much improved, but still with a great number of small cysts. Whether fresh cysts were forming is uncertain; many small ones grew large under observation, and some were allowed to suppurate in order to observe their natural course. The acne was greatly improved by the treatment, the comedones became much fewer and the skin much healthier in appearance. He has not been seen since. With the improvement in the general condition of the skin it is probable that the formation of new cysts would be much lessened, if not quite arrested. The number of cysts was so very great that a cure seemed almost hopeless; at least, it would require the utmost patience on the part of both physician and patient. Of course, much scarring will result. (Figs. 1, 2.)

The photographs, especially that of the back, show many sloughing cysts, a large one being at the upper end of the anal fissure. The axillary cysts are very large. (Fig. 3.)

ACUTE MENINGITIS.

BY W. T. COUNCILMAN, M.D., BOSTON.

By the term meningitis is understood inflammation of the pia arachnoid, the investing membrane of the brain and spinal cord. Considered as a single membrane, it consists of a serous surface (arachnoid) forming one side of the subdural space and beneath this a loose connective tissue, the pia mater, which carries the blood vessels for the brain and cord. The brain, covered by this membrane, projects into the subdural space as the heart projects into the pericardial cavity. In addition to the vessels, there are numerous lymphatics, which are situated in the adventitial sheaths of the veins and arteries and which are continued with these vessels into the brain. They are true lymphatic vessels with an endothelial lining; they are thin-walled, and, when distended, communicate freely with the tissue spaces. There are no lymphatics in the tissue of the brain itself, nor have lymph spaces, similar to the spaces in other tissues, been demonstrated. The adventitial lymphatics are not continued into the capillary walls. Between the capillaries and the walls of the channels in which they run there are spaces, easily distended, which are in relation with the closely-woven web of the nervous tissue, allowing a free interchange of fluid. Such fluid easily finds its way into the adventitial lymphatics. The relation, by means of blood vessels and lymphatics, between the nervous tissue and the investing membrane is so close that infectious processes in one extend into the other. Strictly speaking, all cases of meningitis deserve the term meningo-encephalitis. The lymphatics of the membrane communicate with the general lymphatic system of the body by means of the lymphatics along the nerves and great vessels.

The pia arachnoid, in the form of the choroid plexus, passes into the ventricles of the brain, and the intra-ventricular fluid finds its way into the interspaces of the membrane through the foramen of Magendie. The deep cervical lymph nodes belong to the membrane. The pia arachnoid contains the few connective tissue cells of the fibrous tissue, the cells of the blood and lymphatic vessels, and a variable number of lymphoid cells.

There are various ways by which infectious agents can gain access to this tissue. They may enter it by means of the blood or by the extension of infectious processes from adjacent regions. The

extension may be direct or by means of lymphatics which communicate with those of the membrane.

All inflammatory processes in the pia arachnoid, however produced, agree more or less in their anatomic features. There are, however, certain minor differences in anatomic lesions which are sufficient to differentiate certain forms of meningitis from others. In certain cases these differences are more accentuated than they are in others. The same character of exudation may be produced by the diplococcus intracellularis meningitidis, by the pneumococcus, and by the streptococcus. Even cases of tuberculous meningitis may be found in which there may be a fibrino-purulent exudation without the presence of tubercles. The differences lie mainly in the extent and character of the involvement of the brain, and in the degree to which the intima of the veins and arteries is affected. It would be possible anatomically to distinguish cases of acute epidemic cerebrospinal meningitis from other forms, but the differentiation could not be carried further. All cases of meningitis are cerebrospinal, the meninges of the cord being affected as well as those of the brain. In certain forms, the cord lesions are more marked.

Acute meningitis may be produced by a number of bacteria, but chiefly by those belonging to the pyogenic organisms. The three organisms most generally concerned are the diplococcus intracellularis meningitidis, pneumococcus, and the streptococcus. Of these, the first named deserves the most attention in that it is the cause of the epidemic form of the disease. This organism was first described by Weichselbaum, in 1887, as a specific micrococcus resembling the gonococcus. He found it in six cases of acute cerebrospinal meningitis. The work was confirmed by several investigators, and in 1895, Jager found it in a small epidemic which prevailed in the garrison at Stuttgart. To Jager belongs the credit of first recognizing this organism as the cause of epidemic cerebrospinal meningitis. The description which Jager gave of the organism differs in minor details from that given by Weichselbaum. Weichselbaum has never regarded it as the sole cause of epidemic meningitis but considers that epidemics also may be caused by the pneumococcus. In the very considerable epidemic which prevailed in Massachusetts in 1897, and which was reported by Councilman, Mallory and Wright, this diplococcus was established as the only cause. It was found in thirty-one of the thirty-five cases which came to autopsy. Lumbar puncture was performed in fifty-five cases, and in thirty-eight of these the same organism was found. It was present in all of the acute cases, but rarely in those which ran a more chronic course. Thus, in lumbar puncture, the average duration from the onset of disease until the puncture was seven days in the cases in which the organism was found, and seventeen days in the negative cases.

The organism is one which is cultivated with difficulty. Morphologically, the organisms appear as diplococci occurring as paired

hemispheres, separated by well-marked, unstained intervals, and showing in cultures considerable variations in size. There is a tendency to grouping in fours, or tetrads. In cover-glass preparations from the meningeal exudate, the diplococcus is frequently situated inside leucocytes and sometimes within the nucleus. The appearance is very much like that of gonorrheal pus. The organism is discolorized by the Gram method of staining; in cultures it grows best on blood serum. The colonies are round, colorless, slightly convex or flat, moist and viscid-looking; they may become confluent. The organism has feeble vitality and dies out quickly under cultivation. It has a weak pathogenesis for laboratory animals. The cultures vary in virulence in certain cases, 1 c.c. of a bouillon suspension of a twenty-four-hour blood serum collected and injected intraperitoneally in a guinea-pig will kill the animal in forty-eight hours.*

This type of meningitis is constantly present; it exists in the form of epidemics, which are repeated with some regularity. The disease has peculiar interest in Massachusetts from the fact that it was first described here by Danielsen and Mann, in 1806. There have been four epidemics in the State, each of which has been made the subject of a special report. These epidemics occurred in 1809, 1864, 1874 and 1897. There is a great difference in the morbidity and mortality of the disease in the different epidemics; Hirsch places the mortality at from 20 to 75 per cent. In the last epidemic, in Boston, the mortality was 65 per cent.; the epidemics are usually of short duration. Between the epidemics, sporadic cases appear, which may be more numerous in some years than in others. Before careful bacteriologic examinations rendered the recognition of the disease certain, the character of the infection in sporadic cases was determined by the clinical history, with or without the reports of autopsies. The disease is sufficiently characteristic to make this method approximately correct. In 1897, from the clinical reports, in some cases with autopsies, it seemed probable that here and in Europe sporadic cases were common. The main clinical features distinguishing sporadic cases of epidemic cerebrospinal meningitis from other forms of meningitis were the low mortality (in twenty-four cases from the clinic of Professor Bauer, reported in 1890, there were eight deaths, and in seventeen cases reported from Ziemssen's clinic at the same time there were three deaths), its appearance as a primary affection, and the frequency with which it is followed by secondary affections of the eye and ear.

Since our study of the disease in 1897 there have been numerous reports of sporadic cases, in which careful bacteriologic study of the exudation have determined in the presence of the diplococcus intracellularis meningitidis, and have confirmed the conclusions which we reached in 1897 of the frequency of sporadic cases. Since 1898 there have been sixty-one autopsies on meningitis at the Boston City and Massachusetts General Hospitals, with bacterio-

* Mallory and Wright: *Pathological Technic*, 1904.

logic study of the exudation. In thirteen of these the diplococcus intracellularis meningitidis was found in culture. In addition to these there were eight cases which were considered due to the same cause but in which the organism was not obtained in cultures. Of these five were chronic, with organization of exudation, the organism having evidently died out, and in three the cultures were negative from unknown causes. All of these were primary and did not differ from the type of disease which we had studied in the epidemic in 1897. The absence of bacteria in carefully made cultures of the exudation in acute primary meningitis speaks in favor of this type, for the diplococcus is rather difficult to cultivate, of feeble vitality and can easily die out.

These statistics give no idea of the frequency of the disease. We know that cases do recover, for there are numerous reports of recovery of cases in which the diplococcus has been found in the fluid from spinal puncture. There is great need of more accurate statistics on this subject, and these are to be obtained by careful bacteriologic examination of fluid derived from spinal puncture, in large number of cases, including those in which the disease may only be suspected.

Examination of the health statistics in Massachusetts shows a gradual decline in the number of deaths from epidemic cerebrospinal meningitis from 1897 to 1902. In 1897, which was the chief year of the epidemic, there were 355 cases. The deaths were most numerous in April, May and June, which are the months in which the epidemics are most fatal. In 1898 there were 259 cases, the epidemic influence being slightly shown by ninety-one cases in the same months. In 1899 there were 240 cases; in 1900, 165; in 1901, 176, and in 1902, 165 cases. These cases were scattered over the State without occurring in sufficient numbers in any one place to constitute an epidemic. There is no way of positively determining whether or not they were due to the diplococcus intracellularis. In the Massachusetts reports, other forms of meningitis were placed under the head of cephalitis until 1901, when the term "other forms of meningitis" was used. In 1900 there were 1,205 cases of cerebritis; in 1901, 1,168 cases of other forms of meningitis, and in 1902, 1,200 cases. The cases described as cerebrospinal meningitis are the primary cases, the secondary cases coming under other forms. It is, of course, difficult to determine, without an autopsy account, whether meningitis is or is not primary. All my experience leads me to the belief that, with rare exceptions, cases of primary meningitis are due to the diplococcus intracellularis. In the thirty-five autopsies made in 1897, all the cases were primary, and the twenty-one found since were also primary. In the remaining forty of the fifty-eight cases only two, in one of which the pneumococcus was found and in one the streptococcus, were regarded as primary. It can be concluded, both from autopsy evidence and from statistics, that sporadic cases of meningitis due to diplococcus intracellularis are of frequent occurrence, but we have no way of determining how

frequent the disease is. Autopsy experience shows that the disease is more frequently not diagnosed when present than the reverse. We have no means of estimating the mortality of meningitis due to the pneumococcus or streptococcus; these cases are usually secondary, and the mortality in secondary meningitis is much higher than in the primary form. Up to 1898 we could not find a case in which the culture of fluid from spinal puncture showed pneumococci or streptococci in which recovery took place. Since 1898 there have been, at the Boston City Hospital, four lumbar punctures in which the pneumococcus was found and three in which the streptococcus was found, all of which cases resulted fatally. To a certain extent we can judge of the frequency of the disease by evidences at autopsies preceding inflammation of the pia arachnoid, shown by thickening due to connective tissue increase and by lymphocyte infiltration with a corresponding increase in the glia of the cortex, and glia thickening and granulations on the surface of the ventricles. This condition, which is not uncommon, can be the result of a preceding acute infection, but certainly not all cases are the result of this.

The presence of these sporadic cases is of importance in the occurrence of epidemics. The diplococcus intracellularis is an organism of feeble vitality; it dies out easily on exposure to drying and light and is incapable of a saprophytic existence. In the absence of intervening infections, it would be impossible for the period of epidemics to be bridged over. Not only this, but there is evidence that this organism can produce other infections and may even live as an inhabitant on the normal mucous membrane. There have been a great many cases reported of the presence of the diplococcus intracellularis meningitidis in the nose. In most of these the diagnosis was made on morphologic grounds, and such cases should be thrown out, owing to the probability that the organism was confounded with the micrococcus catarrhalis, which it resembles in morphology and in staining reaction. The differential diagnosis can only be made in cultures. In fifteen cases of meningitis examined in the Boston epidemic, diplococci decolorized by Gram were found in ten. In twelve cases, chosen at random, similar diplococci were found in two. Attempts were made to cultivate the organisms, but not successfully.

Lord has examined the bacteria of the nose in twenty-one cases. In the nose of a physician who had been in daily attendance in the throat room and who had a severe rhinitis with congestion of the mucous membrane and profuse muco-purulent discharge, he found diplococci which all tests showed to be the meningitidis. In reviewing the literature, Lord accepts but three cases, making, with his own, four, in which the diplococcus intracellularis has certainly been found in the nose. Some of these cases are of considerable interest. Kiefer, after experimenting for some days with the cultivation of the organism with the view of

comparing it with the gonococcus, suddenly acquired a severe purulent rhinitis, with headache, nervousness and an uncomfortable sense of contraction of the neck. The temperature remained normal. Examination of the nasal pus by cultures demonstrated the presence of the diplococcus intracellularis, along with other bacteria: the rhinitis lasted fourteen days. In this case it seemed probable that there was a primary infection of the nose, with a slight meningitis, resulting from extension of the infection through the lymphatics into the meninges. The case lacks the proof which spinal puncture should have given, both of the meningitis and of the character of the meningeal infection, if present. There can be no doubt that extension may take place from the meninges into the nose, just as it does into the ears and eyes. Rhinitis is not an uncommon condition in acute meningitis, and Albrecht and Ghon found the diplococcus intracellularis by culture from the nose in one of their cases of acute meningitis. The evidence which we have justifies us in the conclusion that there is a form of meningitis produced by the diplococcus intracellularis meningitidis, that the epidemics of acute meningitis are due to this organism, that sporadic cases are not infrequent, that, with rare exceptions, primary cases of meningitis are due to this organism; that recovery takes place much more frequently in this type of disease than when infection is due either to the pneumococcus or the streptococcus, that the disease is more common than is generally supposed, that the organism does not live as a saprophyte outside the body, that the organism may be found on the mucous membrane of the nose, where it may produce a rhinitis, and that it is probable that infection of the meninges takes place by extension from some of the adjacent mucous membranes by means of the lymphatics. We can only explain the epidemics of the disease by the assumption that at certain times the power of infection is increased either by an increase in the virulence of the diplococcus or by a decrease in the resistance of the tissues. The study of the influenza bacillus in the past years has shown much the same condition. The organism is constantly present, and not only are sporadic infections produced by it frequent, but the bacillus may live as a harmless inhabitant of a mucous surface. The causes underlying the occurrence of epidemics are unknown, and even atmospheric conditions can not be excluded. With regard to the pneumococcus, we know that the organism is associated with acute croupous pneumonia, but we do not know the underlying conditions which enable the pneumococcus to produce this disease.

Of the sixty-one cases of sporadic meningitis seen since 1897, eighteen were found to be due to the pneumococcus. Weichselbaum regards this organism as one of the most frequent exciters of both primary and secondary meningitis, and both he and Netter believe that meningitis due to pneumococcus may appear in epidemic form. In the report on meningitis in 1898, ten cases were found to be due to the pneumococcus, and in two of these

the infection was primary, no other lesions due to the organism having been found. In but one of the recent cases was the infection primary in the meninges, and even here the accompaniment of an acute nephritis suggests a preceding acute infection. In six cases the infection was secondary to otitis media and mastoiditis: in one case it was secondary to an infection of a tumor of the sphenoid; in one case it was associated with the streptococcus, secondary to fracture of skull and operation; in one case it was secondary to abscess of the prostate; in one case it was secondary to acute infection of ethmoid, "the pores of right cribiform plate contain fibrinous pus in continuity with exudation about right olfactory lobe," in two cases it was secondary to acute croupous pneumonia, in four cases it was secondary to acute bronchopneumonia and pleurisy, and in two cases it was secondary to acute pneumococcus endocarditis.

In but few of these cases did the infection appear to be embolic: in most cases the extension to the meninges was by continuity or by the lymphatics. In its general pathogenic properties, the pneumococcus attacks tissues from mucous surfaces and extends in the body by surfaces. I believe that the frequency of pneumococcus meningitis is greatly overestimated, and especially its frequency secondary to pneumonia.

Vital statistics with regard to the occurrence of disease are not worth much, owing to errors in diagnosis. The deaths from meningitis and pneumonia in Massachusetts have been taken during a period of five years in order to cover slight inequalities in different years, commencing in 1898, the year following the epidemic of cerebro-spinal meningitis. If there is any marked relation between meningitis and pneumonia it should be shown in the inter-occurrence of the diseases. The greatest number of deaths from what are described as other forms of meningitis occur in August, when the mortality from pneumonia is lowest. It is very possible that the high number of cases in March, April and May is due to confusion of these cases with primary meningitis due to the diplococcus intracellularis, for these months show the highest mortality in epidemics and in sporadic cases due to this organism.

There were eighteen cases of streptococcus infection, and in one the infection was primary. In seven cases it was secondary to fracture or operation wound of the skull; in eight cases it was secondary to otitis media and mastoiditis, in one case it was secondary to acute streptococcus endocarditis, and in one it was secondary to acute bronchopneumonia and acute cystitis. We see from this analysis that, in the two hospitals mentioned, fatal sporadic cases of meningitis are equally divided between the three organisms which are to be regarded as the main etiologic factors. Of the remaining four cases, two were produced by the staphylococcus pyogenes aureus, one was secondary to trauma with following operation, and one was secondary to empyema. In two cases

the nature of the infection was not determined. In one of the cases reported in 1898 the meningitis was produced by the anthrax bacillus and was secondary to a primary lesion on the face. We have never had any cases due to the typhoid bacilli.

The pathologic process in meningitis due to the diplococcus intracellularis consists in inflammation, with purulent, sero-purulent and fibrino-purulent exudation. The most marked lesions are found at the base of the brain, extending from the optic commissure backward over the crura, the pons and medulla. On the convexity of the brain the exudation is usually most intense on the lateral surface, little or none being found in the meninges of the longitudinal fissure. The meninges of the cerebellum are always involved and often the greatest mass of the exudation is found on the upper surface of this structure. In the most acute cases, those dying a few days after the onset, there may be a little more than intense hyperemia of the vessels of the meninges and cortex. In the more advanced cases, dying from five to twelve days after the onset, the amount of exudation is much greater and has a tough, rather gelatinous character. In the chronic cases, in which death has occurred in from fifteen to thirty days from the onset, there is edema and general thickening of the meninges, which is most marked at those localities where the acute process is most evident. In one case, the duration of which was apparently over thirty days, the entire medulla was embedded in a dense mass of connective tissue. In the cord the exudation is most marked along the posterior surface and may be found here in large amount, while the anterior surface may show only cloudiness and injection. There is usually more exudation along the dorsal and lumbar cord than along the cervical.

In eight of thirty-five cases on which autopsies were made in the epidemic studies, there were definite microscopic lesions in the brain, consisting of hemorrhages in the white matter. No abscesses were found. The cranial nerves were affected to a greater or less degree in all cases. Those most affected were the second, fifth, seventh and eighth. They were embedded in the exudation which extended along them, and on section they were found to be swollen and reddened. The gasserian ganglia were examined in a number of cases, and in all they were found swollen and softened. The spinal nerves were also affected; the nerve roots were embedded in the exudation and the spinal ganglia were red and swollen. The exudation was also found around the nerves of the cauda equina.

Microscopically, the exudation in the most acute cases was purulent and the leucocytes were exclusively polynuclear. The absence of eosinophile cells was remarkable. In more advanced cases the number of cells in the exudation was greater and the fibrin was abundant. As the process advanced, large, endothelial, phagocytic cells became increasingly numerous, and in some cases made up a large part of the exudation. They often contained from

one to several polynuclear leucocytes enclosed in vacuoles and showing varying degrees of disintegration.

In the chronic cases the exudation was mainly represented by degenerated pus cells. In these chronic cases there were also numbers of plasma and lymphoid cells.

Microscopically, lesions of the tissue of the brain and cord were absent in but few cases. They were most evident in those cases in which from five to ten days elapsed from the onset of the disease until death. The blood vessels of the convexity were injected. The cortex appeared redder and the tissue edematous. In places there was circumscribed infiltration of the tissue with pus cells, which extended downward from the infiltration in the meninges. This infiltration was usually most marked in the outermost layer of the cortex above the ganglion cells, but in some places it extended among the ganglion cells and even into the white matter. Single pus cells were often found in the brain tissue, apparently remote from the areas of infiltration. In two cases extensive softening, with purulent infiltration and hemorrhage, was found in the cortex of the cerebellum. These pus cells in the brain were irregularly distributed in the tissue, and were found both in places which appeared to be altered by infiltration of edematous fluid and in those in which the intracellular material seemed to be normal. The pus cells in the tissue were often distorted in shape, sometimes extending in long lines, the shapes resembling those seen in pus cells wandering in the tissue of the cornea. Their situation and shape did not seem to indicate the existence of preformed spaces. They were but rarely found around the ganglion cells.

In certain areas in the cortex, particularly about the vessels, large numbers of large endothelial cells resembling those in the meninges were often found. They were apparently formed by proliferation of the cells in the adventitial tissue. They extended often for some distance in the tissue around the vessels where this showed evidence of disintegration, but they seemed to have little or no power of wandering into tissue which was comparatively normal. The presence of these cells is important in relation to the neuroglia cells. Proliferative changes in the neuroglia were constantly present. In the chronic cases there was a distinct increase in neuroglia fibrils, together with increase of cells, which was chiefly marked in the tissue of the ventricles and in the outermost layer of the cortex. In several of the more acute cases numerous nuclear figures were found in the cells of the neuroglia. These were particularly marked in one case. The proliferating neuroglia cells somewhat resemble the large endothelial cells. There is an increase of nucleus with the formation of evident protoplasm about it. The nuclear figures are well marked, showing spindles and centrosomes. Often large cells with several nuclei result from such proliferation. In one specimen in which this was most marked, nuclear figures were also found in the so-called Trabant cells adjoining the ganglion cells.

Analogy with other tissues would indicate that such changes in the intercellular tissue consisting of proliferation of fixed tissue elements and exudation of leucocytes would be accompanied by degeneration of the specific cells of the tissue, namely, the ganglion cells. The most evident changes in the ganglion cells were found in those places where disintegration of the tissue was best marked, and consisted in disintegration of the cell protoplasm. It is difficult to distinguish such conditions from artefacts. Degeneration of nerve cells is not of the same character as degeneration of parenchymatous cells in other organs. The state of our knowledge with regard to structure of ganglion cells and arrangement of granules is not sufficiently definite to enable us to determine with certainty their degenerations.

The most marked changes in the nerves were found in the second, fifth and eighth; the lesions of the nerves represent an extension of the inflammatory process from the meninges.

The dural covering of the optic nerve in the orbit showed little change save dilatation of vessels. The subdural space was dilated and the exudation was found in the pia arachnoid of the nerve. From the meninges the infiltration extended more or less into the nerve itself. In both the optic and olfactory nerves, proliferation of the neuroglia cells was shown similar to that in the brain. The exudation may extend along the optic nerve into the eye.

In acute cases, section of the eighth nerve showed it embedded in a mass of pus, its sheaths softened, broken up and in places entirely gone. The nerve was infiltrated with numbers of pus cells, partly in the form of lines running through it, partly in a more diffuse infiltration. The seventh nerve often showed as great a degree of infiltration as the eighth. Longitudinal section of the fifth nerve extending into the gasserian ganglion showed intense neuritis in the nerve on the cerebral side of the ganglion. Similar changes of the nerve roots and ganglion of the spinal cord were found in all cases which were examined. In some of the more chronic cases, lesions of the nerve roots of the spinal cord were more marked than in the acute cases.

In the chronic cases there was marked thickening of the meninges due to connective tissue formation and a marked increase of the neuroglia of the cortex. There was little evident exudation, circumscribed yellowish foci marking the remains of it. The meninges at the base were opaque, and were enormously thickened, and there were bands of organized tissue extending from point to point. In one of the most chronic cases, in which the duration of the disease could not be ascertained with any accuracy, owing to the mental condition of the patient when brought into the hospital, the meningeal changes simulated general paralysis. The only evidence of exudation was in the ventricles, in which masses of partly organized fibrin were found adherent to the lining. In another case the entire medulla was so embedded in a dense mass of connective tissue that it was difficult to remove it. Chronic hydrocephalus is

not uncommon in such cases. It is due to closure of the foramen of Magendie by organization of the exudation about the cerebellum.

There is some difference in the character of the lesions due to pneumococcus and streptococcus, as compared with those due to the diplococcus intracellularis, but no difference between lesions due to the pneumococcus and streptococcus. Endovascular lesions, consisting in cellular infiltration behind the endothelium, were found in both arteries and veins in meningitis due to the pneumococcus and streptococcus. The endothelium was preserved and often formed festoons projecting into the lumen of the vessel, with the cell accumulations behind it. The endothelial cells were swollen, but otherwise unaltered. I do not believe that the large cells arise from proliferation of the endothelium, but they seem to reach their position by emigration from the interior of the vessel. In meningitis due to these organisms there is also less tendency to involvement of the tissue of the brain and cord, nor is the extension along the nerves so marked. The cases of these forms of meningitis have not been so numerous nor has their anatomic study been so thorough as in the cases due to intracellularis.—*Journal of the A. M. A.*

Chronic Myositis Rheumatica and Its Treatment by Massage.

—G. Norstrom discusses this condition, which he says is not, as is generally believed, a rare disease, but is, on the contrary, one of the most frequent affections of the human body, though as it is seldom diagnosed, it is but little known. The principal features of the malady are inflammatory deposits in the substance of the muscle, which may vary greatly in size and may become as hard as cartilage, and pain, mostly resembling that of chronic rheumatism. The errors in diagnosis to which the condition may give rise are very numerous, and illustrative cases are described in which what had been considered to be rheumatism, renal calculus, growing pains, Bright's disease, torticollis, migraine, neuralgia, cystalgia, writer's cramp, sciatica, tarsalgia, etc., proved to be chronic myositis. The treatment consists in massage, more or less energetic, according to the consistency or age of the deposit. Great patience is necessary on the part of the patient and operator, as long standing cases in old people may require several months of energetic friction. In order to prevent relapses the treatment should be continued until palpable changes are completely removed, although in young people one may leave a small residue which by the treatment has been reduced to a soft condition, in the hope that nature will remove it.—*Medical Record*, March 11th, 1905.

Selections, Abstracts, Etc.

PHIL GILHOOLEY'S OPINION OF CHRISTIAN SCIENCE.

F'WAT is me openion of Christshun Scoience, is it? Bedad, its aisier to ax that kuistion than it is to anser it. Doorin the coors av me marred loife I have bin accoostemed to raloy, in sooch matthers, upon Mrs. Gilhooley's joodgment. Mrs. Gilhooley is a wummun of vhist bridth of intillict, and has masthered all the secrets of asthrology and Spiritaalism, and moint-radin, and whin her coosin, woife of wan of the Word Bosses of Boston sint her an invite to vishit her, I tould her that I tought she ought to avale hirsilf av the opportunity av intercoorse wid the intellectooal and advanced society av that ceinter of thot and coolshure; wid the oondersthandin, howsomiver, that she was not to investigate the mystheries of Boodhism. You see, I was in mortal dred that she wud becom imbood wid that ould raligon, and get to be a macatma, or mahatma, or f'wat iver it is called, and ind her days in pious contimplashun instid of moindin the childer. Well, whin Mrs. Gilhooley ratoorned to the bussum of her family I vintured to ax her the question you have axed me.

Christshun Scoience, is it? says she. I ought to know all about it, for I had the priviledge of attindin at the Mother Church in Boston, an havin the trooth out av the new Bible, "Science and Health, wid Kay to the Schriptoors," wich Mother Eddy, as she is irreverently called by her disciples, declares is a new rivilashun, and which is red ivery Soonday in all the churches av the danominashun all over the wurruld.

The leadin doethrine, the foondamental foondashun of Christshun Scoince is the silf-ivident proposisshun that moind is ivirything and matther is nothin. Whin mortal moind ocepts this trooth, she says, the wurruld will be reginerathed, and avil and sin, and disase will dishappear.

Hould on, says oi, do oi quoit conprehind the manin of this new revelashun? Moind is ivirything, matther is nothin. P'fat? is moind mate and close and f'wisky?

Bedad, thin we shud have a foine shupply av those useful materials, seein the vhist ixtint and profundity av yure moind, Mrs. Gilhooley. My! but it's a moighty consolin doethirne entirely— Oi f'ish oi had known this doethrin bafore, thin oi

f'wud have taken the wurruld asier, and not torminted meself about dollars and cints.

"Whist!" says oi. "Oi think oi hare one of the childer cryin."

"Yis," sis Mrs. Gilhooley, "it is little Teddy. The dare boy is onder the dalushun that he has a bile in his oxther.* Oi hav throid to convince him that he is misthaken, but widout success. "But," says oi, "has he a bile, Mrs. Gilhooley?"

Says she, "There is marely a big lump and rid swelling be in pain, for the new reivilashun, on page 46, says, 'You say a boil is painful, but that is impossible. The boil simply manifests your belief in pain, through inflammation and swelling, and you call this belief a boil. Now administer mentally to your patient a high attenuation of truth on this subject, and it will soon cure the boil.' It is a mare matther of belafe, you see, and oi have thried to insthill the blessed trooth into Teddy's moind, but still he howls."

"Phwat was it you administhered to Teddy, Mrs. Gilhooley?" says oi.

"A high attinuation av trooth," says she.

"What do you mane by a high attenuation?" says oi.

"Phy," says she, "that manes the very smallest, infinitesimal amount, and homeopathy informs us that the higher the attenuation the greater the power."

"Oh," says oi, "that is it, is it? And how do you administher it, Mrs. Gilhooley: wid a spoon intarnally, or like a poultice, ixtarnally?"

"Nayther," says she, "oi administhered it mintally."

"Oh," says oi, "how did you administher this hoigh attinuation av trooth into Teddy's moind? Did the bye take the rimidy?"

"Oi am afreid," says she, "thot he did not; if he had taken it the bile would have been cured."

"Well, well," says oi, "oi quoitte agree wid you, Mrs. Gilhooley, that whin yure new Boible tills us that Teddy is not in pain, thot he only belaves he is in pain, that is the very highest attinuation of trooth mortal mind can consave. Whin the bye would not take the medicine, f'why didn't you hould his nose?"

Jist thin, f'wat wid the discrorrstin, and the salt hirrin oi had for dinner, oi began to feel dhry, and axed Mrs. Gilhooley had she airy a dhrop of butthermilk to wit me f'whistle wid.

"Me dear Phil," says she, "thot is another of the mortal delushuns the wurruld is throubled wid. Listen to the new revelashun, page 384: 'You say, or think, because you have par-taken of salt fish, that you must be thirsty, and you are thirsty

*Arm-pit.

accordingly; while the opposite belief would produce the opposite result."

"Maybe," says oi, "but in moi presint deluded condishun, the mane difficoolty oi foind is to convince meself av the opposite belafe. I throid wanse, f'whin I was carryin the hod, and had nothin to ate for lonch but a bit of bread, to convince meself that I had some chase. Oi broke the bread in two, and says to meself, this pace is bread, that pace is chase, but, begorra, oi found that whin oi camè to ate the chase, altho oi cud make me oies belave it was chase, oi cuddent make me mough. Oi am afraid, Mrs. Gilhooley, it will be such a long toime bafore oi can convince meself that oi am not thirsty, oi will have to thrubble you to get me some butthermilk at wanse."

F'win oi was ragalin me moind, or me stummack, oi dunno f'which, f'wat's the odds, says oi to meself, oi bagun to think it was toime to ate, too, so says oi, "oi fale somet'wat fattigood, Mrs. Gilhooley, wud you have the kindness to give me somethin to ate?"

"Aate," says she, "oh, the ignerance of mortal man. Rival-lashun taches us, page 113, 'Fatigue is an illusion of physical weakness; control your mind, and so destroy this illusion. Mortal mind first made that weariness.'"

Faix, by this toime oi bagun to get fattygood in my moind as well as in me mortal body, and oi am afreered oi sphoke rather crossly to me intillietool parthner. "Well, well," says oi, "maybe it is me moind, indade, oi know me moind is wary now, f'wat's the odds f'wich it is, let us have some food to refresh us—moind and body, or aither, just as it plases you."

Mrs. Gilhooley was very patient wid me, as becomes such a shuperior wumman to an ignorant man, so all she says is to rade again from her Bible, page 118:

"Food neither strengthens nor weakens the body, but mortal mind declares that proper food supplies nourishment and strength to the human system."

"Well, well," says oi, "ravaled ralegiun, as taught by Chrishun Scoince, may daclare that food does not strengthen the body, but moi mortal moind daclares it does, so plase let us have somethin to ate."

Jist thin, as oi rose frum me sate, a pane sthruck me in the shmall iv me back, as if oi had a stroke from Tim Doolan's shellelala, and oi gave out iv me a howl enough to froighten the childer.

"Oh, Phil," says me woife. "f'wat's the matther?"

"Oh, Biddy," says oi, "oi'm kilt entirely—the lumbago has got me in me back—worra-worra—oi can't move."

F'wat do you think Biddy anshwered me, p. 47: "Your mortal mind makes its own pain."

"Thin," says oi, "your religun tells me that oi haven't got a pain—oh, worra, there it is agen, in me back—does it?"

"Yes," says she, "all pain is in the moind."

"Indade, thin," says oi, "oi didn't know thot me moind was in me back, but it must be, if the pane is in me moind, for, as sure as eggs is eggs, ivery toime oi move, oi have a diabolical pain in the shmall av me back, as if oi was sthruce with the bar of the dure. Ouch, there it is again. Biddy, darlint, hand me down me dhudeen from aff the mantel, and now, darlint, a match."

Jist as oi sthruce off the match, didn't some of the brimstone, badd cess to it, fly off and lite on me finger. Oi gave a joomp, and that makes the lumbago attae me again, and batwane the two oi howled louder and louder.

"F'wat's the matther now?" says Biddy.

"Oi've burrrnt me finger," says oi, "besides thot torturin lumbago in me moind."

For me ralafe f'wat did the dare creashur do but turn to her Boible again and read (p. 54): "You say, I have burned my finger. This is an exact statement, more exact than you suppose; for mortal mind, and not matter, burns it."

"Oi suppose, oi dunno, thot oi was properly rebuked for sayin thot oi had burned moi finger, whin it was the burnin brimstane that did it; but begob, oi was nonplushed. Pain is in me moind, and me moind is in me back. Me moind is thirsty, not me stunnmac. Me body was not fattygued whin oi had been carryin the hod all day. Teddy is cryin for nothin—food doesn't strengthen me body—me body is an illushun. Oi give it up, says io, it is quoitte beyant me comprehenshun."

"Well it moight be," says she, "for does not Mother Eddy tell us to ixpiet unbelavers loike you 'who do not ondersthand its ('Science and Health') proposishuns well enough to pass judgment upon them.'"

"Well, Biddy," says oi, "there is wan consolin fact, ivery thing material may be an illushun, but f'whisky is rale, for f'whisky is spirit, and so oi will have a toomblor of poonch to comfort me moind, f'which is disthacted, what wid the lumbago in me moind and Teddy's cryin wid the bile in his oxther, and the tachin of the new rivillashun."—*Jas. H. Richardson, M.D., Toronto.*

THE POSITION OF THE KIDNEY AFTER NEPHROPEXY.

BY AUGUSTIN H. GOELET, M.D.,

Professor of Gynecology, New York School of Clinical Medicine, Gynecological Surgeon to the Metropolitan Hospital for Women and Children.

RESTORATION of the prolapsed kidney to its normal position, the author believes, is essential to restore to normal action the kidney already crippled in consequence of the displacement, which interferes with its circulation and function. He does not share the belief of those who regard the abnormal mobility of the organ as the sole cause of the symptoms, but rather its abnormally low position.

If downward displacement of the kidney causes inflammation of the organ, as has been shown,* because of interference with its circulation and function, it is not reasonable to believe that fixation in an abnormally low position will effect any change in the condition so far as the kidney is concerned.

The prolapsed condition of the kidney seriously interferes with its circulation and function, and when fixation is made lower down than normal the same condition prevails, with this difference, that it is permanent, whereas before fixation the recumbent position of the subject permitted normal replacement with consequent relief for some part of every twenty-four hours, which is not possible after such fixation. An additional objection to fixation too low down, below the rib, is that compression of the kidney by the corset or clothing is permitted, and it cannot escape as before. Such compression is a constant source of irritation. Hence fixation of the kidney lower than normal leaves both patient and kidney in worse position than before.

The author takes this occasion to repeat the position he has maintained throughout, viz., that splitting or peeling of the fibrous capsule of the kidney is both unnecessary and unwise, because just as firm attachment can be secured without much mutilation, and restoration of the kidney to its normal position will re-establish normal action and the associated nephritis subside, provided the operation is resorted to early, before permanent structural changes have taken place. In other words, he believes that any case of nephritis due to or associated with prolapse of the kidney that is curable by splitting or peeling off the fibrous capsule may likewise be cured by fixation alone, without depriving the kidney of its fibrous capsule, if the organ is restored to its normal position.

The kidney suspended by its partially detached fibrous cap-

* *Medical Record*, December 20th, 1902.

sule by sutures securing it to the muscles exposed in the incision, must necessarily cause attachment of the kidney too low down.

The author believes his method* of inserting the sutures and bringing them out and tying them on the surface at the upper angle of the incision is the best way of securing the kidney in its normal position. He reports 184 consecutive nephropexies by this method without mortality and without a failure to secure permanent fixation with subsequent relief of symptoms.—Abstract of a paper read at the second annual meeting of the American Urological Association at Atlantic City, June 9th, 1904.

Large Tumor of Frontal Lobe.—Philip King Brown, San Francisco, and W. W. Keen, Philadelphia (*Journal A. M. A.*, March 11th), report a case of an immense tumor (angiosarcoma) of the frontal lobe. The symptoms were insidious, there was very little pain, but some mental impairment and later blindness. There was also disturbance of the olfactory sense, exophthalmos and other symptoms indicating localization. The operation involved a removal of bone for a circumference of 37 cm. in the left frontal region. The tumor extended back to the limits of the incision; it had eroded the posterior wall of the frontal sinus, the orbital plate and the two plates of the frontal bone, as far back as the posterior limit of the frontal. Notwithstanding the pressure on the nerves of the eye and its muscles and on the eye itself, a single dose of five grains of phenacetin controlled the only pain of any note from first to last.

The Limitations of the Value of Nitro-Glycerin as a Therapeutic Agent.—H. P. Loomis has tested the effect of this drug on arterial pressure in patients by means of the sphygmomanometer, and also in animals, and finds that high arterial pressure in man is not perceptibly affected by it nor is dilatation of the blood vessels apparent. Some of the conclusions reached are as follows: The usual dose of nitroglycerin of 1-100 grain is too small to produce any effect in pathological conditions; 1-50 grain is a minimum dose. It is a perfectly safe drug to use. Even in large and repeated doses the author has never seen any ill effects. Its effects are very transient, as shown by the experiments on the dogs, and the ordinary dose of 1-100 grain every four hours could not possibly have any effect on the arteries. Nitroglycerin is said to increase the quantity of urine in chronic Bright's disease, but after keeping accurate records of the daily amount of urine passed, the author was never able to satisfy himself that any increase seen was due to this drug. In conditions due to arterial spasms, so-called, such as angina pectoris, migraine, asthma,

nitroglycerin may be of benefit, in full doses often repeated, but not in arterial sclerosis where the arteries themselves are more or less changed.—*Medical Record*, March 18th, 1905.

Manuel Garcia: Teacher, Discoverer and Man.—J. E. Newcomb pays a graceful tribute to Manuel Garcia, the inventor of the laryngoscope, who celebrated the hundredth anniversary of his birth on March 17th. Descended from a Spanish family remarkable for its artistic achievements, Garcia reached eminence as a master of singing, and for his studies on the nature of the voice. In the course of these he hit upon the principle of the laryngoscopic mirror, and in 1855 presented to the Royal Society of London the memorable paper entitled "Observations on the Human Voice," in which his method was described. At first the importance of the discovery was not realized, but through the efforts of Czermak and Turck the value of Garcia's work was made manifest and the modern science of laryngology rendered possible.—*Medical Record*, March 25th, 1905.

Radiotherapy and Surgery, with a Plea for Preoperative Radiations.—W. J. Morton says that in the treatment of carcinoma the best interests of the patient demand a combination of X-ray and surgery. The new growth must be removed, but the cutting out process carries with it another most dangerous feature, and that is incision of infected lymphatics, and the risk of leaving behind some of the neoplastic cells. On the other hand, radiation will not remove the tumor, but it will clear up of cancer cells all the outlying territory up to the tumor itself, and so render the operation a comparatively safe one. The plan followed by the author is as follows: Practice X and radium radiations thoroughly, say six weeks to two months, before operation; and practice it as well after operation, say for about the same period of time. In this manner we avoid the Sevilla of "soiling the wound," and the Charybdis of failure to remove the tumor. The radiation should not be carried to the point of producing destruction of tissue, but should just barely give rise to a mild dermatitis. This preoperative radiation does not interfere with wound healing or favor the occurrence of gangrene. A number of illustrative cases are cited and figured, and the author's general conclusions are summed up as follows: (1) Radiation treatment exerts a retarding effect upon the growth of some cancers; (2) it cures some cases—the ratio to operative measures is not here discussed; (3) Preoperative radiation will increase the ratio of cures by operation; (4) preoperative radiation transforms some inoperable cases into operable cases; (5) preoperative radiation is recommended as a precautionary measure, probably quite as important as preoperative antiseptic preparation for surgical operation.—*Medical Record*, March 25th, 1905.

Proceedings of Societies.

FIFTH ANNUAL MEETING OF THE CANADIAN ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.

THE fifth annual meeting of the Canadian Association for the Prevention of Consumption and Other Forms of Tuberculosis, held in Ottawa on March 13th, was both interesting and successful. There were representative men from Montreal, Kingston, Toronto, Hamilton and London, beside many from the immediately surrounding country. The North-West Territories were represented by Dr. J. D. Lafferty and the Maritime Provinces by the Hon. F. A. Laurence, M.P.

The Hon. Senator Edwards took the chair promptly, and opened the proceedings with a brief but appropriate address. In substance he said:

"The business this afternoon, as I understand it, as that of the ordinary annual business meeting, the reception of the report of the Executive Council, and the election of officers. It is gratifying to me, and must be gratifying to all those connected with and interested in the work of the Association, to see such an attendance here this afternoon. It exceeds greatly all my expectations. It shows plainly the interest being taken in our work.

"At one time it was thought unwise to attempt to gather a large meeting this year, but the march of events has created a juncture which, in my judgment, justifies the large and influential meeting gathered on the present occasion.

"In accordance with a previous understanding, Mr. Geo. H. Perley in the House of Commons moved a resolution which led to a very full and satisfactory discussion. The resolution was simply that the time had come when Parliament should take active steps to check the progress of consumption. Practically the same resolution will come up in the Senate whenever we have a reasonably full attendance of the doctors who are members of that body, which I hope will be in a few days. With these remarks, I now declare this meeting open for the transaction of business."

The report of the Executive Council having been called for, was presented and read by the Secretary. It set out the gracious acceptance of the office of Honorary President by His Excellency,

the Governor-General, Earl Grey; that an influential deputation had waited upon the Premier, the Rt. Hon. Sir Wilfrid Laurier, and had laid before him the views of the Association respecting the needs of the country with reference to the devastations wrought by the various forms of tuberculosis. The Premier expressed his sympathy with the object of the deputation, said the ravages of consumption were certainly alarming, and that everyone must feel that something ought to be done promptly. Certain difficulties had been referred to by members of the deputation; that such existed could not be denied; still, he would faithfully report the representations of the deputation to his colleagues for their consideration: and that on the occasion of the visit to Ottawa of the Hon. Premier Haultain, of the North-West Territories, a deputation had waited on him and solicited his co-operation. He assured the deputation of his warm interest in the work of the Association, and his readiness to assist in every way in promoting its objects.

Petitions to County Councils.—In appendix No. 6, pp. 51, 52, of the Transactions of last year, section 4 of the report of the Committee on the Relation of the Governments to the Crusade against Consumption in man and the domestic animals, reads as follows:

"To this end, the Executive be instructed to prepare a memorial setting forth the necessity and urgency of the immediate establishment of at least one large sanatorium in each province, and that it is the duty and obligation of the Federal Government to provide assistance for the erection and maintenance of these institutions, as they are a necessity and in the interests of the whole people, and that the Executive forward a copy of this memorial to the municipal body in each province most directly representative of the people, and in provinces where such municipal bodies do not exist, then to the Provincial Assemblies, and endeavor to secure their co-operation and support of our petition, and when secured that the Executive of this Council then make application to the Federal Government to provide such assistance for the erection and maintenance of such institutions."

A sub-committee was appointed by the Executive Council, Dr. Bryce, convener, by which these instructions were carried out. Petitions were prepared and printed in both English and French. Either directly from the office of the Secretary, or through the members of the committee resident in Manitoba, North-West Territories and British Columbia, the documents were distributed so as to reach the County Councils, the Provincial Boards of Health, the members of the Provincial Assemblies, and the Medical Health Officers in every part of the country.

In response, replies containing assurances of co-operation have been received from widely separated points in the Dominion. They are still coming in, and many more are expected. As a sample of what is being done in this way, we report that, to this date, twenty-four petitions addressed to His Excellency, the Governor-General in Council, have come from British Columbia. In fact, there is but one mind and one voice in that province regarding the matter.

Affiliations.—The British Columbia Association for the Prevention and Treatment of Consumption and Other Forms of Tuberculosis, and the Colchester Association for the Prevention of Tuberculosis, have been recognized as in affiliation with the Canadian Association for the Prevention of Tuberculosis.

Lectures.—During the year, the Secretary has, on invitation, lectured on the "Cause and Prevention of Consumption," in fourteen places in Eastern Ontario, eleven places in Prince Edward Island, nine places in Nova Scotia, and two, St. John and Moncton, in New Brunswick. The Secretary has also been permitted to address the quarterly meeting of the Lanark County Public School Teachers' Association, and the Eastern Ontario Dairymen's Association at the annual meeting in Brockville.

Distribution.—In the last year not less than 785,000 pages, setting out "How to Prevent the Spread of Consumption," have been put into circulation, making in all nearly one and a half million pages distributed by the Association.

Parliamentary Action.—The work has probably received its greatest impetus this year through the presentation of the following resolution to the House of Commons: "That in the opinion of this House the time has arrived when Parliament should take active steps to lessen the widespread suffering and the great mortality among the people of Canada caused by the various forms of tuberculosis." This resolution was brought into the House by the member for Argenteuil, Mr. G. H. Perley. One to the same effect will be brought into the Senate by our President, the Hon. Senator Edwards, at an early date. Thus far the resolution has been received with such general favor that there is room for hope that sooner than could have been anticipated at our last annual meeting, something effectual may be done to stay the ravages of this plague. In these circumstances, the Executive Council think that the Association has abundant reason to feel encouraged in its effort to inform the people and to secure the adoption of measures of relief.

The resolution of Sir James A. Grant, M.D., regarding the medical inspection of schools, both public and private, had been sent to the Ministers of Education in all the provinces.

The Treasurer's report showed the state of the finances to

be fairly satisfactory. The expenses had certainly been kept well within the income, but the income from members' fees, etc., was less than might have been expected.

The great interest of the meeting centred around the question as to what action should be taken at the present juncture. Sir James A. Grant moved, seconded by Mr. Perley:

"Whereas the following resolution was agreed to unanimously by the House of Commons on the 20th of February, 1905, viz., 'That in the opinion of this House the time has arrived when Parliament should take some active steps to lessen the widespread suffering and the great mortality among the people of Canada caused by the various forms of tuberculosis';

"It is hereby resolved that this Association do now and hereby respectfully petition the Dominion Government to take such action as may be expedient to constitute a Royal Commission with authority to enquire into and report upon what active steps should be taken to lessen the widespread suffering and the great mortality among the people of Canada caused by the various forms of tuberculosis."

By arrangement between the mover and seconder, Mr. Perley first spoke to the resolution as follows:

"Since the resolution was before the House of Commons there had been considerable private discussion as to what the next step should be, and the matter was carefully considered this morning by the Executive Council. They thought it best that the resolution to be proposed to this meeting should take the precise form of the one now before you. It simply asks the Dominion Government to appoint a Royal Commission, whose business it would be to interview the authorities of the provinces as to what they would be willing to do, and what form the Commission thought the co-operation of the Dominion Government ought to take, and then the Commission would report back to Parliament as to the best ways of accomplishing this object. There is no need that we should ask the Dominion Government to do anything that would contravene either the letter or the spirit of the B.N.A. Act. The Dominion has a right to take such steps as it thinks best with regard to any matter of public health. Public Health, as such, is not mentioned in the Act, and it is, therefore, a joint matter between the provinces and the Dominion. Either can take steps to put down this dread disease, and the first thing is to find some workable plan under which the Dominion should do certain things and the provinces certain other things. They should work hand in hand, because even the Dominion Government, powerful as it is, cannot cope with this matter alone. It requires the combined efforts of the general, the provincial, and the municipal authorities, as well

as the co-operation of benevolent individuals, to secure the desired end. This present movement ought to be satisfactory, but, of course, we do not expect to turn the world over this year. I am glad to say that we got more satisfaction from the members of the House than I think any of us expected to get. The object we have now in view is to take the next step, which will in due time lead up to the active intervention of the Dominion Government in the way of a substantial grant."

Sir James A. Grant, in supporting the resolution, said: "I do not suppose that any person here will labor under the impression that we have not had the entire sympathy and co-operation of the Government. From the very inauguration of this Association, down to the present time, we have received the warmest support from the Honorable the Minister of Agriculture, Mr. Fisher. Judging from what the Association has already received from the Dominion Government, I am sure that when this resolution is placed before them it will command the closest attention. Because we all know, and the Government of the Dominion knows, the fearful loss entailed upon the whole country by the ravages of consumption, a very great part of which can be prevented."

Prof. Robertson said: "I think it gratifying that a member of our Executive did the country the large service of bringing this matter before Parliament. You will observe that in the resolution which was adopted by the House of Commons, Parliament declared that the time 'has arrived.' It is not for us to say that the time is opportune. Parliament has stated that 'the time has arrived when Parliament'—not this Association—'should take some active steps.' Parliament has decided that itself. It is for us to keep the necessity for action before Parliament. Having decided that something must be done, the next thing is to get information as to what that 'something' should be, and how it should be done. To formulate such a scheme is fitting work for the Commission for which it is now proposed to ask, and I know of no more momentous question that concerns the welfare of Canada to-day."

Dr. Sheard, Toronto: "I think that the Executive should be congratulated upon having put into practical shape the wisest move ever made by this Association. Everyone who has paid any attention to this matter knows that the handling of tuberculosis is a very expensive matter, for which no one likes to assume responsibility, and which everyone is anxious to push over upon the shoulders of someone else if he can. I think that if the idea, as embodied in the resolution, is carried out, and a Commission appointed which will make full and exhaustive enquiries, so that they can find out the best mode of action, I think we will have

taken a very important step. I think this Association should lend its every energy towards pushing the thing to a finish and bringing home to the Dominion Government the great importance of appointing a Commission which will take the work seriously in hand and collect the necessary information to enable the Government to lessen this dread disease."

Dr. Rutherford: "As you are aware, I have, from time to time, pointed out that there were difficulties in the way of the Dominion Government taking hold of this question. I am very glad that this resolution has been drawn up in such a way that I don't think anyone can raise any objections to the object outlined in it. It simply urges upon the Dominion authorities the necessity of taking some definite action at the earliest possible moment, which is what everyone wants."

Dr. Hodgetts: "I hail with pleasure a resolution of this kind, as nothing will really be done until such a Commission is appointed. I trust it will be a stimulus to the people of Ontario to go still further in health matters. I think we should have a Minister of Health in the Province of Ontario. Over one-quarter of our expenditures in Ontario are given to health matters, and we should have a man to look after it more particularly. I trust we will be able to stir up our province in that direction and carry out this good work in that way."

Dr. Noble: "As regards the question, there are many difficulties to be encountered. Even if we had a sanatorium I am not sure we would have what we most need. The battlefield for tuberculosis is in the home, not the sanatorium. Assuming the correctness of Sir James Grant's figures, we have about one death from tuberculosis every hour the whole year through in Canada. If the whole truth were known, possibly a good deal more than one in every hour. Our need would not be met by having one sanatorium in each province. The distribution of literature is a great benefit, and I think the plans adopted by the Montreal Association of having a dispensary is a very good one. Some do not consider that a patient is suffering from tuberculosis until the bacilli are found in the sputum, but the doctor who discovers it only at that stage will not have many cures to report. When we are in doubt, the patient should be treated as a candidate for tuberculosis. The resolution has my hearty support, but after all it is individual effort that will reach the home that is going to do the best work."

Dr. Bryce: "I think it is now three years since a resolution showing the necessity for co-operation between the Dominion, the provinces and the municipalities regarding the work of eradicating tuberculosis was adopted. During the last year, we have been dealing with the counties and other municipalities.

and have elicited considerable information. It is gratifying that this resolution still carries on the same idea of co-operation between the Dominion and Provincial Governments and the municipalities. The adoption of the course proposed will enable us to find out for what and in what way co-operation is really practicable."

Dr. Third: "I agree with Dr. Sheard that there are many difficulties in the way. I am not one of those who think that the sanatorium offers the final solution of a problem. We have had general hospitals for many years, yet only a small percentage of people who are ill go to hospitals, and I am sure only a small percentage of tuberculous patients will ever go to the sanatoria for consumptives; the great mass will ever remain in the home, and it is here, I am convinced, the battle must be waged and won. Some may say, 'Compel all consumptives to go to these special institutions.' With a disease so general as tuberculosis this could not be done. Legislation must only keep pace with public opinion. We must 'make haste slowly,' that there may be neither coercion nor hardship. Besides, many of these incipient cases continue to work, occasionally, throughout the greater part of their illness, without injury to themselves, and with great advantage to those depending upon them. Of course, these patients should be carefully instructed how to care for and disinfect sputum. I see no reason why sanatoria for incipient cases should not be, to some extent, self-supporting. A deep-rooted conviction that our methods are right, voluntary individual responsibility, and determined effort, the outcome of these two, must be fundamental factors in the stamping-out process. The practice in vogue in Montreal, as outlined by Dr. Adami here to-day, appears to me to be along the right lines. These organizations should be, as far as possible, in close touch with the central organization, which, again, should have the pulse of the best organization in the world engaged in this work. I do not wish to decry the work the sanatoria have done or are doing. They are doing good work, and deserve generous support. Let us, however, not rely too implicitly on the sanatorium for the eradication of this universal scourge."

Dr. Barrick: "For five years this subject has been before the Dominion of Canada. The consensus of opinion of those who have been working upon this line is that it is a question so broad that nothing short of all that the Dominion Government can do, and all that the Provincial Governments can do, and all the municipal authorities can do, is required to cope with it. It has never been thought that the mere matter of sanatoria was going to be the end of the work in view. Every report of this Association every year says that we do not depend upon munici-

pal sanatoria alone, but on all matters of hygiene, the teaching of the public, the teaching of the whole public. There is nothing, however, that will teach the public more effectively than a municipal sanatorium, one in each county, where the people who suffer from this disease can go and learn how they should take care of themselves in their own homes. It has been said that home treatment is the only thing. What is to be done with the people who have no homes? What is to become of the people who live in boarding-houses when they get sick? Where is your home treatment then? We have to have sanatoria, so that when the people are seized with this disease and have no homes in which to be cured, they may have a place where they can, at the expense of the Dominion and Provincial Governments, the municipal authorities, and benevolent individuals, all combined, be cured, like those who have homes. I am in hearty sympathy with the resolution which has just been moved. I believe it is the next step to be taken, and it is the immediate step. I also believe, with Dr. Noble, that in our municipality we must take the next step to help this matter."

Mr. Edwards: "I have been chairman at a great many meetings, but I have never put before a meeting a resolution that I think so important as this one. Is it your pleasure, gentlemen, that the resolution be adopted?" (Carried unanimously.)

The meeting then proceeded with the election of officers, with the following result:

Honorary President—His Excellency, the Governor-General.

Honorary Vice-Presidents—Rt. Hon. Sir Wilfrid Laurier, G.C.M.G., K.C., D.C.L. (Oxon.), LL.D., P.C.; Rt. Hon. D. A. Smith, Baron Strathcona and Mount Royal and High Commissioner for Canada in London, England; His Honor Wm. M. Clark, K.C., Lieut.-Governor of Ontario; His Honor Sir L. A. Jette, K.C.M.G., Lieut.-Governor of Quebec; His Honor, the Hon. A. G. Jones, P.C., Lieut.-Governor of Nova Scotia; His Honor J. B. Snowball, Lieut.-Governor of New Brunswick; His Honor Sir D. H. McMillan, K.C.M.G., Lieut.-Governor of Manitoba; His Honor Sir H. Joly de Lotbiniere, K.C.M.G., Lieut.-Governor of British Columbia; His Honor D. A. McKinnon, Lieut.-Governor of Prince Edward Island; His Honor A. E. Forget, Lieut.-Governor of North-West Territories; F. T. Congdon, Esq., Acting Commissioner of the Yukon.

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The meeting then adjourned.

In the evening a large audience gathered in the Assembly Hall of the Normal School to hear the instructive and interesting address of Dr. J. G. Adami, Professor of Pathology, etc., McGill University, Montreal, Que., on "Adaptation and Tuberculosis." His Excellency, the Governor-General, presided, and in a brief address introduced the lecturer, who, upon taking the floor was listened to with close attention while he proceeded to unfold the mutual relation and interaction between the invading bacillus and the defensive forces of the human body. It is impossible for a layman to attempt to condense a discourse which, though it occupied nearly an hour in delivery, was a model of compactness and brevity. The common judgment was that it was a valuable contribution to the literature of the subject. It is to be published as an appendix to the annual report.

After the usual votes of thanks to all whose services it seemed fitly to acknowledge in this way, the meeting adjourned, to meet on the call of the Executive Council early in 1906.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

EDITOR,

43 BLOOR STREET EAST, TORONTO.

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W. A. YOUNG, M.D., L.R.C.P. Lond.,

MANAGING EDITOR,

145 COLLEGE STREET, TORONTO.

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Laryngology and Rhinology—J. D. THORBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month. London, Eng. Representatives, W. Hamilton Miln, 8 Bonverie Street, E. C. Agents for Germany Saarbach's News Exchange, Mainz, Germany.

VOL. XVII.

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NO. 5.

Editorials.

FRESH AIR, WITH BEEF, EGGS AND MILK, OF THE FIRST IMPORTANCE IN THE TREATMENT OF CONSUMPTION.

FRESH air, with beef, eggs and milk, continue to head the list in the therapy of pulmonary consumption: but all these agencies should work together, if the best results are to be obtained. Some

two years ago an American, named Hubbard, while exploring in Labrador, perished miserably of starvation, though surrounded by the purest air in the world. *Per contra*, if a consumptive were to be shut up in a close room and fed on prime beef, the limit of repletion would soon be reached and he would reject his food. Pure, cold air acts as a stimulant to nutrition. It enables one to eat with a good appetite. The introduction into the lungs of air containing 20 per cent. of oxygen and the circulation of that gas through the capillaries cause nutritive changes to progress steadily throughout the body. Worn-out or exhausted cells are displaced and carried away, to be thrown out as effete material. If work be done, or if exercise be taken in pure air, waste of tissue is increased. Increased waste of tissue excites a craving for food. When a sufficient quantity of food is taken, fresh pabulum is introduced through the blood, and its utilization by the cells of the tissues of the body accomplishes the work of repair.

The consumptive patient has an organism in which there is a marked tendency to rapid metabolism, and he is made so by heredity. But this natural tendency may be intensified by over-work at a laborious occupation, or by dissipation. His lungs are small, weak, and are predisposed to congestion. The consumptive is inclined to leanness, and he does not fatten easily. His assimilative organs do not extract the largest amount of nutriment out of the food he eats, and he requires a larger quantity of food to produce fatness than an individual who has a sound organism.

Ulcers of the lungs resulting from the break-down of tubercular lymphatics are benefited if the sufferer inhales pure air night and day. However, it would be useless to expect the purest air in the world to heal such tuberculous ulcers if a sufficiency of nutritive food were not supplied so as to furnish the raw material necessary for the repair of the ulcerated tissues. An anecdote told of a distinguished veterinarian of the French army illustrates the necessity of prescribing nutritive food, if a physician would assist in the repair of ulcerated tissues. On being asked what treatment he used for galled shoulders in horses, he replied, "Oats."

The importance of nutritious food in the treatment of tuberculous disorders is well understood by the medical directors of sanatoria for consumptives, who strive by fresh air, exercise in suitable cases, and bitter tonics to increase the quantity of nutritive material introduced into the organisms of their patients. A French medical authority says: "Consumptive patients must be made to

eat, with or without appetite, with or without the consent of their stomachs; hence the necessity of gavage."

Of course, these remarks, or others of a similar nature, are made by a great many writers of the medical press; but they will bear repetition, because in them is found the pith of the successful treatment of pulmonary consumption, and also because tubercular disease is very common.

A sanatorium is the best place for a consumptive, because while he is an inmate of such an hospital he is made to breathe pure air, and also because he requires the watchful eye and the directing voice of a physician to overrule his whims, to keep his appetite up to the top notch, and to see that a sufficiency of the best nutritive material is introduced into his frail organism every day in the week.

A practitioner who uses his stethoscope freely soon learns that tubercular diseases of the lungs are pretty common—more common than the public believe. There are many individuals in the community who, without being consumptives in the common acceptance of the word, are "delicate," or "have weak lungs," yet they do pretty good work, lead useful lives, and support their families. It is impossible to place all such persons in sanatoria; in fact, it would not be feasible to build enough sanatoria to hold them, even if they were willing to enter such institutions. In some cases of this kind reluctance to enter a sanatorium is, of course, likely to be overcome by the obstinacy of a pulmonary complaint and the persistence of grave symptoms; and, if recourse to it be not delayed too long, sanatorium life is most useful, often helping to turn the scale in favor of the prolongation of a useful life. It is also true that, even when the resistance to tubercular invasion is high, a regulated sanatorium life gives the best and quickest restoration to health and usefulness.

Ambition, or the struggle for existence, often interfere to prevent a man from stepping down and out of a lucrative situation to take a holiday, or the open-air treatment with the regulated diet, and all the advantages that these agencies imply. Should this be so, rest of body and mind, fresh air in the dwelling, beef, eggs and milk, together with the medicinal use of cod liver oil, arsenic and the glycono-phosphates, will help to stave off the evil day.

J. J. C.

EPIDEMIC CEREBRO-SPINAL MENINGITIS FROM THE PUBLIC HEALTH STANDPOINT.

FROM the report of the Registrar-General of Ontario for 1903, we learn that for that year 114 deaths from cerebro-spinal meningitis occurred in this province. As the report of the Registrar-General is always a year behind, no information can be gleaned as to the incidence of the disease in question in Ontario during the year 1904. During the current year occasional items of news, culled from the papers, show that cerebro-spinal meningitis has claimed a few victims in different parts of the province. For instance, during last March a single death caused by it occurred in a village situated in the western part of this province. During the same month four deaths from it occurred in Russell County, Ontario.

In reply to our inquiry as to the history and cause of this last outbreak, Dr. Hodgetts, Secretary of the Ontario Board of Health, says: "Three deaths occurred in one family, the son and daughter dying at home. The father was the last of the three to develop the disease, and was taken suddenly ill at his brother's a day or two after the burial of his daughter. The fourth death occurred in a house immediately opposite the house of the first case, being a nephew of the patient just referred to. This young man (married) had assisted to nurse his cousin.

"As evidence of communicability the facts are as follows: The first case, a young shantyman, returned home ill and died two or three days after his arrival. The father went away immediately after the funeral to be married, and shortly after his return home a daughter was brought from school in Ottawa, and in less than three days from her return home was taken ill and died. The father and the nephew were taken ill about the same time; both died. The houses were, in my opinion, unsanitary places to live in, being built on the ground with little or no ventilation, as is the custom with log houses, and altogether the general surroundings were unsanitary and bad."

Again, as an evidence of its communicability, Dr. A. B. Craig died at Philadelphia on March 13th of cerebro-spinal meningitis, which he contracted from a patient on whom he had been in attendance.

In the city of New York it has prevailed epidemically during the past winter and spring, and 830 persons, the majority of them children, have fallen victims to it up to April 10th, 1905. A com-

mission of experts, appointed to investigate the disease, had its first meeting on March 21st. They decided, among other matters, to issue cards to doctors in hospitals, with blanks to be filled in with data from the bacteriological standpoint, showing the evidences of communicability and what is known of the biology of the disease micrococci with reference to differentiation, agglutination and pathogenesis. Clinically they will inquire about the effect of drying on the cocci and their viability in spray as bearing on isolation and infection. Complete information about the patients' surroundings and the conditions under which they were stricken with the disease will also be collected. It is probable that the scope of the investigation will be world-wide, and that information will be sought from hospitals all over the globe. We may, therefore, expect that any data of a bacteriological or clinical character which Canadian hospital doctors may possess about this disease will be placed at the disposal of the New York commission on cerebro-spinal meningitis.

In an original article, which appeared in the *Journal of the American Medical Association*, and is republished at page 298 of this number, Dr. Councilman writes: "Acute meningitis may be produced by a number of bacteria, but chiefly by those belonging to the pyogenic organisms. The three organisms most generally concerned are the diplococcus intracellularis meningitidis, the pneumococcus and the streptococcus. Of these the first-named deserves the most attention, in that it is the cause of the epidemic form of the disease. This organism was first described by Weichselbaum in 1887, . . . to Jäger belongs the credit of first recognizing it as the cause of epidemic cerebro-spinal meningitis." The disease which is caused by this organism occurs epidemically or sporadically, and is characterized by an inflammation of the meninges of the brain and spinal cord and a great diversity of clinical manifestations. The germ is found chiefly in the polynuclear leucocytes, both in the tissues and in the cerebro-spinal fluid, sometimes in the fluid of the joints. The diagnosis should be confirmed by the demonstration of the diplococcus intracellularis meningitidis in the fluid removed by lumbar puncture.

On account of the fact that the disease is concealed in the nervous centres of the patient, it seems unlikely that the causative germs should be carried on the persons or belongings of those who have been in contact with the sick, or that direct transference of the disease from the sick to the well should occur. An explanation of the probable method by which the disease is communicated

is given by Leube, as follows: "*The disease does not appear to be contagious from person to person. The mode of infection is probably similar to that which obtains in diphtheria, i.e., communication of the disease occurring by direct or indirect transference (by means of healthy persons) of material containing cocci, especially from the nose and the pharynx of meningitis patients.*"

With regard to the route by which the germs reach the meninges, Strümpell and Weigert believe that as the germs are found in the secretions of the nose, infection takes place through that channel, and it has been suggested that the meninges may be reached by way of the Eustachian tube and ear. Dr. Councilman says, among other conclusions expressed in the article from which we have already quoted, "That the diplococcus intracellularis meningitidis may be found on the mucous membrane of the nose, where it may produce a rhinitis, and that it is probable that infection of the meninges takes place by extension from some of the adjacent mucous membranes, by means of the lymphatics. We can only explain the epidemics of the disease by the assumption that at certain times the power of the infection is increased either by an increase in the virulence of the diplococcus, or by a decrease in the resistance of the tissues."

Inasmuch as the disease is transmissible the patient should be isolated and the discharges, especially from nose, ear and lungs, should be disinfected.

Physicians interested in the preventive treatment of disease may derive some satisfaction from this view of the etiology of cerebro-spinal meningitis. Moreover, when one considers the deadly character of this disease, death occurring in from 20 to 70 per cent. of the cases, attention to the hygiene of the nose and throat, especially during the season when it prevails, should not be neglected. In this connection it may also be stated that the rhinologists advise the use of antiseptic solutions sprayed into the nares and throat as preventives. This is not all, however; for as lack of ventilation and crowding in cabins, houses, barracks, tenements, prisons and workhouses are important predisposing influences, the opposite conditions of life should be made to prevail, if the disease in question is to be kept in abeyance. Neither is the fresh air of the country a cure-all, for epidemics of it have been more frequent in rural districts than in the cities. Not that the pure air of the country is at fault, but rather the lack of it, owing to overcrowding and uncleanness in the dwellings. J. J. C.

THE GARCIA CENTENARY.

ON March 17th, 1905, the centenary of Manuel Garcia, the discoverer of laryngoscopy, was celebrated in a public manner in London, England. During the morning he was received at Buckingham Palace by the King, and decorated with an honorary commandership in the Victorian Order. At a gathering, held at 20 Hanover Square, he received a message from the King of Spain, containing the announcement that the Grand Cross of the Order of Alfonso had been conferred on Senor Garcia, and also a message from the German Emperor, who conferred on him the Great Gold Medal of Merit. Addresses and messages were also presented by representatives of universities, laryngological societies, academies of music, and personal tributes from many of the great singers who had been his pupils. A portrait of Senor Garcia, painted by Mr. Sargent and subscribed for by friends and admirers throughout the world, was also presented.

During the proceedings the patriarch was, of course, seated; but his great age was not evident in his bearing. He sat upright, a spare figure, with short, white hair, white moustache and handsome, aquiline features. In the evening he was entertained at a banquet in the Hotel Cecil.

Garcia is of Spanish birth, but has lived the greater part of his life in England. He visited America in 1825, and took the leading part in the "Barber of Seville," then produced for the first time in New York. He retired from the stage in 1825, and devoted himself to teaching and writing on music. His greatest distinction rests on the fact that in 1854 he improvised or adopted certain appliances for the visual study of the action of the vocal cords in singing.

He practised auto-laryngoscopy by placing against his uvula a dentist's mirror, illuminated by solar light from a hand mirror. He repeated his experiments so as to be able to study the two great functions of the larynx, the production of sound and respiration. He may, therefore, in a certain way be regarded as the first laryngoscopist. Fifty years ago, March 22nd, 1855, his paper, "Observations on the Human Voice," was presented before the British Royal Society.

Although nothing of special interest from the musical standpoint resulted from Garcia's invention, it was not allowed to perish.

Three years later, 1857, Türk, Professor of Pathology at Vienna, and Czermak, Professor of Physiology at Pesth, simultaneously published papers in which they related their experiments and showed that it was possible to see the larynx by means of artificial light. Since then the use of the laryngoscope has brought into existence a branch of medical practice from which brilliant results have flowed.

Without wishing to introduce controversial matter, it may be remarked that the discoverer of auto-laryngoscopy was fifty years of age when his great discovery was announced to the world of science. Senor Garcia certainly deserves the gifts of kings, the laudatory addresses of universities, and the acclaim of the laryngologists of the twentieth century. It must also be a source of intense satisfaction to admirers of genius the world over to know that the honors conferred on him were given to the living man, centenarian though he be. Posthumous honors carved upon a man's tomb can only interest posterity. A gift such as Manuel Garcia gave to medicine is rare indeed.

J. J. C.

SURELY NOT AN ATTEMPT ON THE PART OF CHRISTIAN SCIENTISTS TO SUBSIDISE THE MEDICAL PRESS!

A LETTER appears in our Correspondence column, in this issue, which is, to say the least of it, interesting. It is from the Publication Committee of the First Church of Christ Scientist, and is dated "Boston, Feb. 25th, 1905," and is signed by one of the publishing staff of the Christian Science "firm," one "Alfred Farlow," evidently one of the tools of Mary Baker Eddy.

We were much surprised on the reception of this "friendly word."

It is ludicrous for Christian Scientists, who aim at eradicating medical science, root and branch, to appeal to us so pathetically for sympathy just because writers will persist in smuggling attacks on Christian Science into pamphlets and periodicals.

We quite agree with Mr. Farlow that it is "only fair and just that all *incorrect* allusions" to Christian Science, or to anything else, should be suppressed, if possible, but we do not see how that could be accomplished without a censorship of the press, which, we fear, would not be acceptable in this year of grace.

Mr. Farlow's "kind" suggestion that Christian Scientists "would gladly assist publishers in determining the accuracy of matter relating to Christian Science," is certainly very "kind," but we trust he will not be offended because we decline, with thanks, his proffered assistance.

Mr. Farlow knows perfectly well that it is a war to the knife between us and Christian Scientists, and must deem us simpletons to suppose that we would allow them to meddle with our arms.

We deem ourselves quite competent to judge for ourselves in the matter, and, even if we doubted our capability, we would decline to call in the aid of those whose brains are so befuddled as to accept the following as revealed Truth (with a big T):

1. "All human knowledge must be gained by the five corporeal senses." Yet,

2. "The evidence of the senses is *never* to be accepted" (S. & H., 384).

3. Without reversing them, "Their evidence is to be reversed" (S. & H., 60).

4. "How can man be dependent on such material senses for knowing, seeing, or hearing?" (S. & H., 485).

5. "All error grows out of the evidence before the senses" (S. & H., 535).

6. "The senses are unnatural, impossible and unreal" (S. & H., 543).

7. Yet, "Sight hearing—all the senses of man—are eternal. They cannot be lost" (S. & H., 482).

Mr. Farlow desires us to extend the same "courtesy to Christian Scientists that is accorded to other denominations."

We would be sorry to wound the feelings of any of the estimable people who have been deluded by Mrs. Eddy, but we do not hesitate to say that we entertain for Mrs. Eddy, and her whole system, unbounded contempt.

Mrs. Eddy has dubbed her six hundred pages "Science," and declares that there can be no other science.

"There can be no physical science. Christian Science eschews what is called natural science" (S. & H., 21).

What her science is may be judged from the following specimens:

"Agassiz drops from his summit, for he virtually (*sic*) affirms that the germ of humanity is an egg" (S. & H., 542).

"One distinguished anatomist argues that mortals sprung from eggs" (S. & H., 543).

Mrs. Eddy's science denies that mortals, or any animal, springs from eggs, as follows:

"The propagation of their species by butterfly, bee and moth, *without the customary presence* of male companions, *is a discovery corroborative* of the science of mind" (S. & H., 541).

"The late Louis Agassiz, by his microscopical examination of a vulture's ovum, strengthens the author's view of the scientific theory of creation. He was able to see, in the egg, the earth's atmosphere, the gathering clouds, the moon, and stars, and a small sun" (S. & H., 539).

Such stuff as this is hardly worthy to be called nonsense; it is merely idiotic mumbling.

"Science and Health" claims to be:

"A revelation from God" (S. & H., 1).

"The child called Wonderful" (3) (see Isaiah—"Counselor, the mighty God, the everlasting Father, the Prince of Peace") (Miscellaneous Writings of Mrs. Eddy, 321).

"The guiding orb of truth, the daystar" (preface, S. & H.).

"The Star of Bethlehem" (M. W., 320).

"The little book which was brought down from heaven by the mighty angel" (M. W., 550—see Rev., chap. x.).

"God's right hand, grasping the universe" (M. W., 364).

We are loth to sully our pages with this blasphemy. So far from extending any "courtesy" to Christian Science, on religious grounds, we pronounce it to be a deliberate fraud, concocted to gull credulous people out of money.

1. It is a fraudulent appropriation of the writings and views of one Dr. Guimby.*

2. Although Mrs. Eddy says that when she wrote it, she was "only a scribe, transcribing what God indited" (*sic*) (M.W.S., 11), she claims to be its "author," and as such had the audacity to copyright it in 1870.

3. She kept it from publication during six years in order

* See "A Complete Exposure of Christian Science or Eddyism, and the Plain Truth Regarding Mary Baker G. Eddy." By Frederick W. Peabody, member of Boston Bar, 1901.

to find out whether it could be "*profitably published*" (preface to S. & H.).

4. She declares it to be "*the Holy Ghost*" (S. & H., 579), and sells it at a profit of \$2.50 for the cheapest edition. (See Acts viii. 20: "Thy money perish with thee, because thou hast thought that the gift of God can be purchased with money.")

5. "Science and Health" has been, from time to time, altered, sections being dropped, or transposed; and as selections from it are read every Sunday, *responsively*, purchase of new editions is required.

6. In order to prevent any one from poaching on her preserves, she issued an ordinance, expressly "forbidding the teaching of Christian Science for money" (M. W., 315), and notwithstanding boasts that she had 4,000 students in seven years, from each of whom she received \$300, for twelve lectures, at first, and for seven lectures afterwards, she herself being the only teacher. Concerning this fee, she says, she "was led to name \$300"; "the amount greatly troubled me; I shrank from asking it, but was finally led, by a strange providence, to accept this fee. God has since shown me the wisdom of this decision."* (4,000 at \$300 = \$1,200,000).

7. To enhance the sale of her book, she not only publishes testimonials, which occupy seventy pages of M. W., but has the audacity to publish a testimonial from God, as follows: "The perusal of the author's publications heals sickness constantly" (S. & H., 443).

8. She claims that looking merely at another of her books, viz., "Christ and Christmas," has cured sickness—"A mother writes: 'Looking at the pictures in your book healed my child'" (M. W., 372).

9. Besides these books, the faithful have to purchase hymns, weeklies, quarterlies, journals, music, poetry, portraits of Mrs. E., etc., etc., all issued by the Christian Science publishing establishments.

10. To further increase her emoluments, Mrs. Eddy hit upon the device of "souvenir spoons," about dessert size, adorned with a representation of Mrs. Eddy, portrait and house; price, \$3.00 silver, \$5.00 gold plated. In Christian Science journal, Mrs. Eddy enjoined every one of her followers to buy a spoon

*See Peabody.

for each member of his family. Looking at this spoon is certified, in *Christian Science Sentinel*, to have restored sight to a lady.

11. Over fifty institutions exist on this continent which teach Christian Science, transmuting leather cutters, masons, caretakers, anybody, in fact, into Christian Science healers—if they can scare up \$100.

12. Lastly. Success in Christian Science healing depends upon money—no pay, no cure. In Christian Science journal a healer writes: "When I first began the healing work I rebelled against charging for it. One day I was called to see a patient. . . . As I disliked to charge for my work, I was so much distressed that the patient received no benefit from the treatment. Then it came to me that we had been told to charge for our services. That settled it, and the patient was better at once."

We take leave of Christian Science with disgust. Mr. Farlow must look elsewhere for any sympathy for such an egregious imposture.

J. H. R.

"BEING DONE GOOD."

NEVER look a gift horse in the mouth, be the gift from saint or sinner, is a good rule to follow. A friend must have thought his physician needed a laugh, and so he gave him a book in which the author, a rheumatic, laughs at himself and at the many "cures" he takes. Beginning with the allopathic physician's treatment, he tries the various sanatoria, homeopaths, electricians, "specialists," right down to the Christian Scientists. It is an odd sensation to laugh at one's self, at one's methods, and then at one's neighbor and his methods, and we feel it would be positively selfish not to share the smile; so, Brother Chip, "here's looking at you":

"Of all the ill winds that blow good to the doctors and the druggists, rheumatism is the greatest. It is in respect of that familiar metaphor a perennial cyclone. It is the most reliable old pot boiler that doctors have, and if anybody should really find a cure for it, the doctors would be scared to death."

"To be done, good, by the cauter, the victim bares his back and the doctor proceeds to swipe. The odor of burning flesh quickly fills the room. The most rheumatic victim becomes spry. He does the czardas, the hoochee-koochee, the can-can, and the

Highland fling, and accompanies himself with song. The doctor is surprised, and says the young women come to him especially for this form of nerve tonic. In your mind's eye you see whole trainloads from young ladies' seminaries coming to town to sample Paquelin's popular pacifiers."

"An Italian came along. He had evidently worked around new buildings, and had been in the habit of drinking directly from the hose used by the man who mixes the mortar. The author had engaged the representative of the Tree Planting Society to remove the vegetarian caterpillars from the tree directly in front of the house. The apparatus used for this purpose consists of a pump; a barrel of bug poison, mounted on a waggon, and a long hose leading from the barrel. The Italian arrived just as work on the caterpillars was to begin. The faucet end of the hose was shut off and lay on the sidewalk. All hosiery looked alike to this fellow. He reached for it and turned the tap.

"For God's sake, Johnny, don't drink that!" shouted the caterpillar man from the waggon, with one hand on his heart.

"The Italian cursed him for his stinginess, but passed on, alive.

"Which goes to show that a man will put anything down his throat. He begins on pins and buttons when a baby and never lets up."

"In the author's case, however, nothing that the allopath had in stock seemed strong enough to budge the enemy. A hundred efforts were made to reach his base of supplies, but it was no use. Every resource of the allopath was tried—arsenic, strychnine, salol, protonuclein, ammonial, iodide of potassium (on a mercurial poisoning theory which didn't pan out) and the pharmacopeia knows what all—everything which had ever killed or cured a human being or been avoided by a dog, has been introduced to and into this case. It became so that this expert could tell in a few minutes, by sniffing around in a drug store, whether the proprietor was out of any particular drug, or just how much he had left. This applied to goods in stoppered bottles and included the full line, except soap, cologne, candy, hair-brushes and hot-water bags, though when in these departments the scent sometimes wandered and chased the quarry in among the red flannel chest protectors and the liver pads."

Speaking of Turkish baths he says: "The first thing you do at a Turkish bath is to pay a dollar. Then you write your name and address in a large book. This proves valuable in case you are

not able to remove the remains unaided. Your jewelry and valuables you leave in the safe, because some Turk not yet sobered up may go home in your clothes. One side of the establishment is for men and the other for women. Should Dr. Mary Walker enter, she would leave her duds on the men's side and escape to the women's room through a private door. The sight of her clothes on the women's side would create needless alarm, and might ruin the business.

"This is no society function, hence bathing suits are not needed."

"Emerging in your natural beauty, or pristine elegance, you approach the platform scale and are weighed in. Allow one-quarter pound tare for the towel and your net weight may be easily computed. You then step from the scale to the hot room.

"A number of other Adams are in the hot room, some well done and some rare. The stout men show the best results. It is not a case of grilled bones with them, as it proves to be with the rest of us. A two-hundred pounder hardly bakes at all. He stews in his own gravy, while a lean man, shut in for the same term, must drink a gallon of water in order to raise even a dew."

"You must drink plenty of water when in the hot room. They tell you that ice water is the thing to take. You see, the idea is to convert you into a percolator and thus wash you from the inside out. The heat sets all the bodily machinery at work. A glass of water goes in, and in three minutes, provided the pumps work, beads forth on the surface."

"Thus you sit and percolate during the first ten minutes. Your steady drip on the marble floor, if heard in the night at home, would rout you out of bed to light the lantern and make a search for leaking pipes."

Speaking of the dilution of drugs by homeopathic physicians, the author continues: "The homeopath makes no claim that the human body can be nourished by food suggestions. At present he claims to remove disease only by the drop whose potency cannot be lost, no matter how large the quantity of liquid in which it is diluted. If a stone be thrown in the Atlantic at Coney Island, it sets up a ripple which washes the western shore of Africa. Homeopaths, bathing abroad, would find these ripples large enough to dive through. Other folks would not notice them. So with sound. The rag man's bells set up vibrations which go ringing through space for all time, for nothing is lost in nature. Such portions of the sound waves as are not converted into heat, by impact with

solids, push onward to eternity. Hence we may infer that there is a lively old rag-time festival out on the edge of the universe. There will be babies' cries, political oratory, toots from whistles, the ocean's roar, Parsifal, Fourth of July, and the pleading of lonely cats. Only the homeopath's ear or touch will detect these sound fragments and ever-moving ripples. Scientists admit that they exist, but also admit that they cannot hear or see them."

Christian Science does not seem to have found a panacea for the rheumatism, according to the mortal mind of Edward B. Lent. Listen, for surely this outstrips "Sister Mary's Top Note": "You cannot understand Science unless you grasp the fundamental principles of Mind, Matter and Mortal Mind. The best way to do this is to close your eyes and think of the most vacant lot beyond the universe. Mentally strip it of all the rubbish you find there, old chairs, mattresses, tin cans, goats, bedsprings, ash heaps; then cut out the land and the atmosphere; also, bounds of space and limitations of distance and time—as so far and so many hours from the Bowery. Get this conception of nothing as blank as possible, then turn out the light. There you have it—a perfect zero. A place which is not, never was, and won't. Keep a mental grasp of this vacuum, then listen! Don't speak above a whisper, don't let the still, small voice within titter or suppress a giggle. Keep your mental ears straight up, and with patience wait. Presently, you hear Nothing. You hear that great emptiness; that mass of ciphers; that spot without climate, without boundaries, apart from the universe; the nucleus of the soap bubble; and what does it say? 'I am Something! I am Something!'

"'Somebody let the cat in.' That is your conclusion, and after all your trouble to think off an inclosure of Nothing, the blamed cat gets in and you find Nothing claiming to be Something."

W. A. Y.

EDITORIAL NOTES.

The Prophylaxis of Venereal Diseases.—The attention of hygienists has been directed of late towards the prophylaxis of venereal disease, and it is to be hoped that as one outcome of discussions which have taken place some practical advance will be made in the protection of the innocent and unsuspecting. It is unthinkable that a man would deliberately infect his bride with

gonorrhea or syphilis, and yet there is abundant medical evidence to prove that whatever the bridegroom's intentions may have been he is occasionally only too successful in transferring either of these diseases to the partner of his joys and sorrows. Every man and every woman also should present, before marriage, a clean bill of health. For sentimental reasons this regulation may seem to be one of great severity, but, if examined in the light of public hygiene and the scientific practice of medicine, it will be found to be entirely commendable. Under such a regulation illicit intercourse would not be interfered with, and venereal disease would pass from one to another as in the past, but persons desirous of contracting marriage would be obliged to prove their freedom from the venereal taint, showing that from the standpoint of hygiene there is no barrier in each case to the establishment of conjugal relations. • It would also help to take the treatment of venereal diseases out of the hands of incompetent persons. A man may flatter himself that his gonorrhea is cured, though he dare not indulge in wine for fear of bringing back the enemy. If the law here alluded to were placed on the statute book he would be obliged to place himself under proper medical treatment, so as to be permitted to enter the married state. In like manner, also, a syphilitic patient would be obliged to show that he is free from all local manifestations of his complaint, and that a suitable time has elapsed since the primary attack and the disappearance of secondary symptoms. For obvious reasons the reporting of venereal diseases to boards of health, together with the names of the patients, would not be a popular law. To report the cases without the names would interest the statistician and throw a searchlight on the irregular sexual relations of a certain per cent. of a population, but would not help to repress venereal diseases. A campaign of instruction through leaflets, issued by boards of health and placed in the hands of physicians, would be useful. In a good many instances the simple reading of a well-written pamphlet giving the prophylaxis of venereal diseases would be a useful reminder and might help to prevent a relapse. In other instances a man about to place himself in a position where he is liable to contract a venereal disease will not bother himself about logic or leaflets, and, if he is under the influence of liquor, may forget all about the preventive rules just at the time when they would be of service. Although of immense importance, the prevention of venereal disease must always be something to be wished for rather than something

which can be definitely accomplished. But the treatment of these diseases is a question which particularly interests physicians, and they should thoroughly equip themselves for the work. Some physicians should keep dispensaries, where the poor could receive treatment for venereal diseases, scientific in character and free from publicity. A hospital professor of medicine is engaged in teaching medicine to his students and a large amount of public clinical material is the breath of his nostrils; a private physician is engaged in treating the disease of A. B. or C. D., and the prejudices of his patients against exposure should be paramount. In any case, whether done at an hospital, a private dispensary, or a doctor's office, the distribution of leaflets with adequate explanations would be a useful preventive measure of venereal diseases.

Gonorrheal Conjunctivitis.—Every patient who has gonorrhea, if accountable, should be warned to look out for his own eyes and for the eyes of those who may be brought into close relation with him or his belongings. Neither should it be forgotten that besides the wife and children of a patient, his nurse or his physician may suffer from the disease innocently acquired. Some few years ago one of the intern staff of the Toronto General Hospital lost the sight of an eye from purulent conjunctivitis, which he acquired on account of his attendance on a case of gonorrhea in that hospital. This unfortunate result is an illustration of the fact that energetic and enlightened treatment, begun by specialists as soon as gonorrheal conjunctivitis appears, will not always prevent blindness. Clean midwifery will greatly diminish the number of cases of blindness from ophthalmia neonatorum; but whenever there is much reason to suspect that the vagina of a puerperal woman harbors the gonococcus, the Cr  d   method should be employed on the eyes of the babe to which she gives birth. This consists in letting a drop or two of a 2 per cent. solution of silver nitrate fall from a glass rod on the cornea, while the lids are held apart, and allowing the solution to flow into all parts of the conjunctival sac, without any additional manipulation of the lids. The efficiency of the Cr  d   method is indicated by the statistics of Leopold (*Berliner Klin. Woch.*, August 18th, 1902), who reports 2,146 deliveries, with but three cases of purulent conjunctivitis, although by microscopic evidence 98 and by clinical evidence 200 of the women had gonorrhea. Even when, because of the neglect or inefficiency of preventive measures, purulent conjunctivitis occurs, careful treatment begun before the cornea has become

visibly involved will almost invariably prevent blindness. Authorities agree that in nearly all cases early efficient treatment will save vision. On this account the laity and the medical profession should be thoroughly educated on this subject. Furthermore, mawkish sentiment should not be allowed to stand in the way of the public good, and the laws of some States providing for the compulsory notification of all cases of inflammation about the eyes of infants are deserving of and should receive our imitation.

Facial Erysipelas.—In the *Detroit Medical Journal* for March, Dr. Spohn, of Elkhart, Indiana, writes interestingly on facial erysipelas. From different physicians Dr. Spohn obtained reports of 1,000 cases of erysipelas, 900 of which were of the facial variety. Of the facial cases the beginning point of the disease was: In 3 in the scalp; in 3 over the cheek bones; in 7 in the eyes; in 60 on the ears; in 90 on the mouth; in 737 on the nose. This shows that not only were 90 per cent. facial; but also that about 82 per cent. began at the nose. Dr. Spohn incriminates a previous chronic catarrh as the principal causative factor in facial erysipelas. This is especially true of those cases in which the disease begins on the nose. Many such cases have ulcers of the septum narium which become infected from streptococci and from them the disease spreads. However, all wounds and abrasions in which the streptococci pyogenes are found do not develop erysipelas. There is something lacking in this part of the germ theory which bacteriologists have not been able to clear up. Perhaps it may be that the vital resistance of the tissues of the patient must be lowered before he can contract this disease. Dr. Spohn concludes that "the history of facial erysipelas, the cause of the disease and the beginning point of so large a per cent. of cases should be a plea to every physician to urge on his patients open and free nostrils, proper breathing and cleanliness of the nares."

Detention Hospitals for Sick Immigrants Entering Canada.—During the season of 1902-3 temporary detention hospitals were provided by the transportation companies at the three ports of Quebec, Halifax and St. John, the release of patients therefrom being under the control of the medical inspectors of these ports. The detention hospital at Quebec is said to be the largest and probably the best equipped institution for that purpose in America. Last year, up to November 30th, 1904, 880 patients were treated in it. The medical service at the detention hospitals is supplied

at a minimum cost to the immigrant. Last year a minimum daily charge of 50 cents per capita was made; but it is understood that during the current year a higher charge will be made should the fee mentioned prove insufficient for the cost of maintenance and treatment. From May 1st to June 30th, 1904, the cost of maintenance and administration of the Quebec Detention Hospital was:

Medical service.....	\$ 203 33
Attendants and guards	487 48
Housekeeping	1,742 41
Transportation of immigrants from wharf to hospital and return	299 75
Total.....	<hr/> \$2,732 97

The large charge for hospital guards is due to the compulsory nature of the detention. In addition to immigrants detained on account of disease others are included, chiefly the children or other relatives of the patients. Dr. Bryce, chief medical inspector, remarks, in his annual report for 1904, that the strictness of the inspection of immigrants at Canadian ports has resulted in a more rigid examination of immigrants before leaving European ports and in lessening the number of persons requiring treatment for disease at the Canadian detention hospitals.

Getting Ready for the Metric System.—The policy of the Canadian Government in supplying metric system outfits to the High Schools is for the purpose of being ready for the change. If England and the United States make a change to the metric system, Canada would probably have to follow their example. There is at present a strong movement on foot in England and the United States with this end in view, and it behooves the Canadian Government to be ready for it. It is a gratification to learn that Canadian educational circles are being prepared for the new method, and this much is probably all we have any right to expect. It would be far more gratifying if Canada were to take the lead in this matter and were to show English-speaking countries the right way.

J. J. C.

PERSONALS.

DR. G. A. PETERS, we are glad to say, has almost recovered from his recent illness.

DR. J. F. W. ROSS, of Sherbourne Street, returned from the South about three weeks ago and has been greatly benefited by the trip.

DR. J. W. MACCALLUM and Mrs. MacCallum returned from England a day or two ago, after spending two months in the land of "The Rose."

DR. ALEX. MCPHEDRAN, another of the ranks laid aside by illness, has returned to the city after a trip South, and, feeling his old self again, resumed his consultation work.

DR. C. R. DICKSON, of Sherbourne Street, has purchased from Hon. Justice Clute his beautiful residence, No. 192 Bloor Street West, near Avenue Road. Dr. Dickson will move there on the 1st of this month.

MR. WM. A. MACDONALD, M.B., begs to announce to his colleagues in the medical profession that he has commenced the practice of his profession in Toronto at No. 8 Bloor Street East, and devotes his attention exclusively to the diseases of the ear, nose and throat.

Obituary

DR. JOHN HERALD CROSSES THE BAR.

DR. JOHN HERALD, Professor of Materia Medica and Therapeutics at Queen's University, Kingston, died at the Toronto General Hospital on April 12th. He was admitted to the hospital the previous Sunday, and on Monday an operation was performed. Some hope was entertained for his recovery, but he sank gradually till the end came. Deceased was born in Aberdeen, Scotland, in 1855, his father being the Rev. James Herald (Presbyterian). John Herald was educated at Queen's University, Kingston, and graduated with honors in 1876, receiving the degree of M.A. in 1880. He graduated in medicine at the same institution in 1884, and was subsequently appointed to the staff of his Alma Mater. For some years he had been a member of the governing body of the University. Politically, Dr. Herald was a Conservative, and in the municipal campaign of 1894 was elected Mayor of Kingston. He was a Methodist. His wife, who survives him, was Miss Grafton, of Dundas, Ont.

Dr. Hastings, of Toronto, and Dr. Dickson, of Hamilton, were brothers-in-law of Dr. Herald. Deceased was Past High Chief Ranger of the Independent Order of Foresters. The remains were removed to Dundas for interment.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

A FRIENDLY WORD.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY :

Sir,—Inasmuch as occasional criticisms, unkindly and misleading sentences, and sometimes lengthy attacks on Christian Science are being woven into books and pamphlets, purporting to have been written on other subjects, we deem it but just to publishers that we should call their attention to this fact. In writing on other subjects it is not necessary to include an attack on Christian Science, and such an attack cannot but interfere with the mission of the book containing it, while at the same time it undoubtedly jeopardizes the good name of the publisher.

We believe all publishers will agree with us that it is only fair and just that all incorrect allusions to Christian Science should be eliminated from manuscript intended for books and periodicals, and we would suggest that Christian Scientists would gladly assist publishers in determining the accuracy of matter relating to Christian Science. Christian Science is comparatively new, and many write, not after a correct knowledge of the subject, but from a mere cursory reading and from data carelessly gathered from flippant critics.

The body known as Christian Scientists is largely recruited from the intelligent and educated classes, and the number is rapidly increasing, and we assume that all publishers desire to extend the same courtesy to Christian Scientists that is accorded to members of other denominations, that they will welcome the information which this letter is intended to convey, and will accept it in the same friendly and brotherly spirit in which it is written. Yours sincerely,

ALFRED FARLOW.

Aortic Regurgitation with Chronic Miliary Tuberculosis in a Man Twenty-two Years Old.—M. Leale reports this case, which seems of special interest, on account of the infrequent association of these two lesions. It is also unusual to see well developed aortic regurgitation in so young a subject.

❧ News of the Month. ❧

CANADIAN MEDICAL ASSOCIATION.

THE thirty-eighth annual meeting of the Canadian Medical Association will be held at Halifax, N.S., on the 22nd to the 25th of August, 1905. All members are invited to be present and contribute to the success of the meeting by contributing a paper or a demonstration or joining in the discussions.

The Committee on Papers and Business desires to call attention to the following extracts from the Constitution:

"All papers (or abstracts thereof) should be in their hands at least three weeks before the date of meeting.

"A copy of every address, discourse, or paper read before the Association shall at once be handed to the General Secretary, and shall become the property of the Association, and shall be preserved with the other documents, etc.

"Members desiring their papers to appear in any particular journal shall present a duplicate copy with the name of the journal marked thereon."

In order to make proper arrangements *re* accommodation, all intending to contribute or to be present should communicate with the General Secretary without delay.

Dr. John Stewart, of Halifax, N.S., is President, and Dr. George Elliott, 203 Beverley Street, Toronto, is General Secretary.

A LIBRARY, A LABORATORY AND A NURSERY.

DR. OSLER, who is soon to enter upon the duties of the regius professorship of medicine at Oxford, arrived in Montreal on April 14th from Baltimore, and after declining to be interviewed by the newspaper men addressed the body of medical students at McGill University, lunched at St. James' Club with a number of well-known local physicians, and in the evening delivered a speech at the medical faculty dinner at the Windsor Hotel.

Instead of being met at the station by a band of indignant sexagenarians armed with bitter anathemas and knock-out drops, the famous lecturer was received by a few friends and driven to the residence of Dr. Shepherd, whose guest he was during his visit in Montreal. By noon hour, at which Dr. Osler was to address

the students, Molson Hall was crowded, and when the professor arrived a little later there were vociferous cheers of welcome. Applause and laughter interrupted the doctor quite frequently as he proceeded to speak.

Dr. A. Cummings, President of the Medical Association, presided, and on the platform were Principal Peterson and a score of physicians. The address was, as Principal Peterson observed, marked by humor, professional knowledge and wealth of literary allusion, sweeping from St. Chrysostom to George Eliot. Wit and lore were brilliantly blended.

Apart from the general mass of his remarks, Dr. Osler advised the students to study two things—books and men. Perhaps the famous theorist spoke from experience when he said: "To no man is it given to know the truth, the whole truth, and nothing but the truth. But what is the student but a lover, courting a fickle mistress. Truth is the best you can get with your best endeavor. Thus you will learn to be content. If you retain your modesty it will enable you to avoid that terrible mental blindness where you cannot recognize truth if it stares you in the face—the condition that faced Harvey when he discovered the circulation of the blood, and dared not publish it abroad for twelve years because the scientific leaders could not conceive that great truth.

The speaker epitomized his advice to young medical men as follows: "There are three things the practitioner needs: a note-book, a library, and quinquennial brain dusting. The note-book is necessary to keep live observations on all cases, serious, obscure, and mistaken diagnosis. With regard to brain dusting I advise merciless self-severity, and broad charity to others, but especially always that you play the game fairly. The ambition of every young doctor should be to have three well-stocked chambers—a library, a laboratory and a nursery. You may not achieve the first at once, but you can start at least, and, if necessary, for the sake of the first two, leave the nursery to the future."

ONTARIO HOSPITALS ASSOCIATION.

THE annual meeting of the Ontario Hospitals Association was held on April 12th at the Parliament Buildings, and a deputation waited upon the Premier to ask for an increase in the grant to hospitals, or to have them, at least, placed upon a certain basis. At present there is provided 50 cents per patient, which is found insufficient. A further grant of 25 cents per patient is asked. The total grant to hospitals is \$110,000. As the number of patients grew the grant per head automatically decreased. Those members of the deputation who spoke were Dr. O'Reilly, Dr. Powell, Ottawa; M. May, M.L.A., Ottawa, and Dr. Ferguson.

The Premier promised consideration.

At the annual meeting Dr. O'Reilly presided, in the absence of Edward Gurney. The statistics show that in Ontario hospitals 39,223 patients were treated in 1904, as against 35,912 in 1903. The total revenue for 1904 was \$844,881, including the Government grant, which amounted, when divided, to just about 17 cents per day for each patient entitled to receive it. The actual average cost for each patient was 89 cents a day, and the total expenditure for 1904 was \$841,829, as compared with \$784,643 the previous year.

These officers were elected: President, Edward Gurney, Toronto; vice-presidents, C. O'Reilly, M.D., Toronto; George Orme, Ottawa; B. W. Robertson, Kingston; Adam Beck, M.L.A., London; J. Billings, Hamilton; H. Malcolmson, Chatham; secretary-treasurer, J. Ferguson, M.A., M.D., Toronto; committee, M. O'Connor, Toronto; Robert McLaren, St. Catharines; J. H. Stratford, Brantford; P. L. Chabot, Ottawa; James McLaughlin, Owen Sound; T. L. Kenny, Sarnia; Robert Melvin, Guelph; T. Cochrane, Sudbury.

DR. OSLER'S SUCCESSOR.

DR. LEWELLYS FRANKLIN BARKER, who has been chosen by the trustees of Johns Hopkins University as professor of medicine, and who will, along with Dr. William Sydney Thayer, the new professor of clinical medicine, fill the vacancy caused by the resignation of Dr. William Osler, spent his youth and was educated in Ontario. Born near Philadelphia thirty-seven years ago, his parents, when he was a child, removed to Norwich, Ontario. He was trained in Pickering College, and studied medicine in the University of Toronto, from which he graduated in 1890. The year following he was house surgeon in the Toronto General Hospital, and in 1892 he went to Baltimore, where he studied and practised. In 1900 he took the chair of anatomy in Rush Medical School, now the University of Chicago, which chair he held until a year ago, when he became professor of medicine. Dr. Barker is tall and commanding of appearance, and within the age limit in which his predecessor said a man could do his best work. He is credited with the possession of inexhaustible energy and an enduring affection for his work. He has written several books, and has done much work for the medical journals. His best known literary work is a translation of Werner Spalteholtz's "Hand Atlas of Human Anatomy," and his book, "The Nervous System and Its Constituent Neurones," published in 1899, is widely used. In 1899 he visited the Philippine Islands as one of the medical commissioners representing the Johns Hopkins. In 1901 he was appointed by the Secretary of the Treasury a member of a special committee to decide the existence or non-existence of the plague in

San Francisco. During a great part of last year he has been in Germany studying clinical medicine. The action of the trustees in dividing Dr. Osler's chair of medicine is not the first instance of the kind at Johns Hopkins. When the chair of physics was made vacant by the death of Dr. Rowland some years ago two men were appointed to succeed him. Dr. Parker's appointment was received with satisfaction by the student body. Dr. Osler is expected to sail from New York on May 17 to assume the work of regius professor of medicine in Oxford University.

SECURE PROOF OF DEATH AND THUS PREVENT PREMATURE BURIAL.

A PARLIAMENTARY bill to provide security against burial alive has been drafted by the Association for the Prevention of Premature Burial. The bill proposes that—

1. No burial shall take place without a medical certificate of death.

2. No certificate shall be given without a personal examination of the body, and the certificate shall state the signs from which death is inferred.

3. The appointment by the Home Office of death verifiers in every district of England and Wales, who shall give their whole time to the duties.

4. The municipal authorities shall have power to establish waiting mortuaries, in which bodies shall remain until putrefactive decomposition sets in.

These proposals were discussed at the annual meeting of the Association at Frascati's in January.

Dr. Walter Hadwen, of Gloucester, who, at the request of the late Miss Frances Power Cobbe, undertook the task of severing her head from her body, to make sure that she would not return to consciousness after burial, advocated the establishment of mortuaries.

"Who has the right to say that instances of burial alive are few, seeing that the only witnesses of such tragedies are the boards of the coffin?" he asked.

Dr. Hadwen further alleged that 999 medical men out of every 1,000 give a certificate of death without an examination of the body.

"No one in the world can be absolutely certain that death has taken place unless there are signs of putrefaction," declared Dr. Hadwen, in support of his contention that waiting mortuaries should be provided.

These public mortuaries would be well-arranged and properly

ventilated buildings, comprising a hall for the bodies and separate apartments for infectious and judicial cases. There would be none of the ghastliness of death, said Dr. Hadwen, but friends would see the bodies of their loved ones surrounded with flowers.

In the hand of each reputed corpse would be a bell, which would ring on the slightest movement of the body, and every possible appliance to aid in the work of resuscitation would be in readiness.

A resolution in favor of the reforms was carried.

ITEMS OF INTEREST.

Dr. Adam H. Wright's New Work on Obstetrics.—Dr. Adam H. Wright, Professor of Obstetrics in Toronto Medical College, has a new work on obstetrics in the press, to be published in April by Morang & Co., Toronto.

"The Theory of Evolution" and "The Descent of Man"—The New York Pharmacal Association, of Yonkers, N.Y., have recently issued a handsome and unique folder which graphically illustrates, in colors, "The Theory of Evolution," and "The Descent of Man," as promulgated by the well-known scientist, Haeckel. The pamphlet is very interesting, indeed, and it will repay any physician to send for a copy, all he has to do to secure one being to mail his card to the publishers.

For "The Busy Practitioner."—One of the most concise and complete books of reference for medical men is Martindale's "Extra Pharmacopeia," containing, as it does, dose, method of administration, incompatibility of all preparations in the British Pharmacopeia, as also valuable notes on all the newer remedies. Messrs. Martindale & Sons are to be congratulated on the excellent arrangement of their books and the convenience and help it will undoubtedly give to the busy practitioner. We are pleased to inform our readers that a supply of their latest edition (the 11th) has just been received by W. Lloyd Wood, who will be glad to supply the profession at the same price at which they are sold in Great Britain, 9s. 6d. (\$2.30) each.

Special Article—Immunity.—Chapter VII of the article on Immunity in *The Journal A. M. A.*, March 11th, gives the definition of acquired immunity, which may be active, as in vaccination, where the anti-bacterial or antitoxic elements appear to form a permanent endowment of the blood, or passive, as in diphtheria, where the immunity is temporary; these elements being soon exhausted or thrown off. The methods of attenuation or of increase of the virulence are mentioned, as also the nature

of acquired immunity. The notable facts of the modifications of resistance at different periods of life are also mentioned, and the use of the biologic test for species, which has acquired such importance from a medicolegal point of view. The part of the leucocytes in acquired immunity is mentioned, and of the bacteriolytic enzymes, which latter, however, are considered most likely accidentally to increased resistance and not to be of special importance of themselves in combating infections.

Fifteenth International Medical Congress to be Held at Lisbon, Portugal.—The fifteenth International Medical Congress will be held at Lisbon in April, 1906. At a meeting of the National American Committee, held at St. Louis last September, the following officers and members were appointed to represent the Congress: John H. Musser, M.D., 1927 Chestnut St., Philadelphia, Chairman; Ramon Guiteras, M.D., 75 W. 55th St., New York, Secretary; Dudley P. Allen, M.D., C. S. Bull, M.D., E. C. Burnett, M.D., E. G. Brackett, M.D., H. E. Bell, M.D., Frank Billings, M.D., Herman M. Biggs, M.D., Herbert L. Borell, M.D., T. J. W. Burgess, M.D., Wm. T. Corlett, M.D., William T. Councilman, M.D., Wm. H. Carmalt, M.D., Richard C. Cabot, M.D., Charles H. Dana, M.D., N. S. Davis, Jr., M.D., E. C. Dudley, M.D., Simon Flexner, M.D., Chas. H. Frazier, M.D., R. H. Fitz, M.D., W. E. Fischel, M.D., C. M. Green, M.D., Chas. Lyman Greene, M.D., H. A. Hare, M.D., L. Hektoen, M.D., W. H. Howell, M.D., Edward Jackson, M.D., E. G. Janeway, M.D., A. Jacobi, M.D., C. G. Jennings, M.D., George B. Johnson, M.D., W. W. Keen, M.D., Howard A. Kelly, M.D., Chas. Kollock, M.D., L. S. McMurtry, M.D., James H. McBride, M.D., A. T. McCormack, M.D., K. A. Mackenzie, M.D., J. B. Murphy, M.D., R. Matas, M.D., Chas. S. Minot, M.D., Robt. M. O'Reilly, M.D., William Osler, M.D., Chas. Powers, M.D., W. F. R. Phillips, M.D., B. Alexander Randall, M.D., J. B. Roberts, M.D., W. L. Rodman, M.D., M. H. Richardson, M.D., C. C. Rice, M.D., Chas. A. L. Reed, M.D., Presley M. Rixey, M.D., H. M. Sherman, M.D., Fred'k C. Shattuck, M.D., Geo. H. Simmons, M.D., Wm. G. Spiller, M.D., Chas. G. Stockton, M.D., Geo. Sternberg, M.D., E. L. Trudeau, M.D., Victor Vaughn, M.D., John A. Witherspoon, M.D., J. Collins Warren, M.D., J. C. Webster, M.D., Wm. H. Welch, M.D., John A. Wyeth, M.D., Horatio C. Wood, M.D., Walter Wyman, M.D. The Executive Committee, appointed from this group, were: Frank Billings, M.D., William Osler, M.D., Frederick Shattuck, M.D., Abram Jacobi, M.D., and J. H. Musser, M.D., Chairman. Any communications regarding the presentation of papers at this Congress, can be sent to Miguel Bombarda, Secretary at Lisbon, or to Dr. Ramon Guiteras, Secretary for this country.

The Physician's Library.

BOOK REVIEWS.

The Naked-Eye Anatomy of the Human Teeth. By THOS. E. CONSTANT, Licentiate of the Royal College of Physicians, London; Licentiate in Dental Surgery; and Member of the Royal College of Surgeons, England. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited. 1905.

This book has the merit of adhering closely to the anatomy itself of the teeth and associate parts. Embryology, physiology, histology, and morphology have been excluded entirely, and though perhaps primarily intended for students, it should be in the library of both the progressive surgeon and dentist.

The illustrations are many, and while Gray's "Anatomy" has been utilized for a few of these, yet the majority are from photographs specially made, the specimens illustrating the development of the teeth being secured from the museum of the Odontological Society of Great Britain.

Besides the anatomy of the temporary and permanent teeth, and the jaws and teeth at various periods of life, the tongue, soft palate, tonsils, salivary glands, the fifth cranial nerve and vascular relation of the teeth and contiguous parts are fully dealt with.

E. H. A.

The American Year-Book of Medicine and Surgery. Being a yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators, collected and arranged with critical editorial comments by eminent American specialists, under the general editorial charge of GEO. M. GOULD, M.D. Two separate volumes, General Medicine and General Surgery. Two octavos, about 760 pages each, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1905. Per volume, cloth, \$3.00 net; half Morocco, \$3.75 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

This year's issue of Saunders' American Year-Book of Medicine and Surgery is fully the equal of any of its predecessors, and in one or two respects even its superior. The two volumes may be fairly called a comprehensive review of medicine and surgery for

the twelve months previous, all the material being compiled under the supervision of one whose ability as a literary writer is unquestioned, by a number of departmental editors familiar to those who peruse the medical literature of the day. In the volume on Surgery, the department of general surgery is edited by Drs. J. Chalmers DaCosta and John H. Gibbon; obstetrics, by Drs. B. C. Hirst and W. A. N. Dorland; gynecology, by Dr. John Baldy; ophthalmology, by Drs. W. L. Pyle and S. H. Brown; diseases of the nose, throat and ear, by Drs. D. B. Kyle and J. L. Davis; orthopedic surgery, by Drs. V. P. Gibney and J. H. Waterman; and anatomy, by Dr. C. A. Hamaan. The volume on Medicine has as its departmental editors Drs. A. Stengel and D. L. Edsall, who contribute to general medicine; Drs. J. P. C. Griffith and J. C. Gittings, who edit pediatrics; Drs. D. Riesman and A. O. J. Kelly, pathology and bacteriology; Dr. Archibald Church, nervous and mental diseases; Dr. L. A. Duhring, cutaneous diseases and syphilis; Drs. R. W. Wilcox and A. A. Stevens, materia medica, experimental therapeutics and pharmacology; Dr. G. N. Stewart, physiology; Drs. John Marshall and J. H. W. Rhein, legal medicine; Dr. S. W. Abbott, public hygiene and preventive medicine; and Drs. Walter Jones and Reid Hunt, physiologic chemistry. The reader will find in those two volumes a digest of the most recent medical and surgical literature, well boiled down, yet readable, and sufficiently illustrated to make the text increasingly interesting.

The Practical Medicine Series of Year-Books. Comprising Ten Volumes of the Year's Progress in Medicine and Surgery. Issued monthly under the general editorial charge of GUSTAVUS P. HEAD, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. I.—General Medicine. Edited by FRANK BILLINGS, M.S., M.D., Head of the Medical Department and Dean of the Faculty of the Rush Medical College, Chicago, and J. H. SALISBURY, M.D., Professor of Medicine, Chicago Clinical School. Vol. II.—General Surgery. Edited by John B. Murphy, M.D., Professor of Surgery, Northwestern University Medical School. Series 1905. Chicago: The Year-Book Publishers, 40 Dearborn Street.

These are neat little volumes of 347 and 545 pages respectively.

The volume on "Medicine" contains a review of the literature of general medicine for the past year. The work is well arranged and contains valuable contributions, under the following headings, viz., diseases of the respiratory organs, the circulatory organs, blood and blood-making organs, infectious diseases, parasitic and metabolic diseases, diseases of the kidneys and the ductless glands.

Vol. II., on "Surgery," covers a very wide range, and contains several wood cuts. These volumes, while designed for the general practitioner, will be found of great practical use to those interested in special lines, as they can purchase the volume separately in which they may have a special interest. W. J. W.

Clinical Chemistry and Microscopy. By FRANCIS CARTER WOOD, M.D. New York: D. Appleton & Co. Canadian Agents: Morang Co., Limited, Toronto.

The up-to-date practitioner of the present day is distinguished from his predecessor of twenty years ago by the fact that he applies the results of modern researches on the blood, sputum, urine, and other secretions and excretions of the body to the solution of his problems of diagnosis. Just inasmuch as he uses these methods intelligently and carefully is he superior to other practitioners who employ only the older means of physical diagnosis.

It has been shown that a considerable number of cases which were supposed to have typhoid fever, with rapid and progressive anemia, had an entirely different disease, acute lymphatic leukemia, a diagnosis of which can be made only by an examination of the blood. Again, an operation is occasionally performed for the removal of tumors of the abdominal cavity, when, if the blood had been examined, the patient would not have been subjected to the shock and danger of an operation. Such patients may be the subjects of myelogenous leukemia, and an operation under these conditions is unjustifiable. Again, the question of testing for albumin in the urine is of the greatest importance in connection with the question of life insurance, and also with the problem of early diagnosis of chronic nephritis at a stage at which the disease can be improved by treatment.

So, too, the identification of the different sugars in the urine, upon which special stress has been laid, enables the practitioner to distinguish between true diabetes and the alimentary melliturias, the latter being of importance from a dietary point of view, but not of bad prognostic import.

The study of sputum may enable the practitioner who employs suitable staining methods to diagnose tuberculosis before changes in the lungs, sufficient to give rise to physical signs, make their appearance, and thus the patient gains six months or a year at a period when climatic treatment is most useful.

The diagnosis of carcinoma of the stomach is often impossible by the ordinary means employed in physical diagnosis. Analysis of the gastric juice, however, frequently enables the surgeon to obtain such strong diagnostic hints of the condition involving the stomach that an operation is warranted. Such

operations are the only successful ones, for when a tumor can be palpated the patient is beyond the reach of a radical cure.

The new text-book by Prof. Francis Carter Wood, of Columbia University, has been prepared with special attention to the needs of the practical clinician. It is the result of a good many years of teaching and laboratory work in Columbia, and in one of the largest hospitals in New York City.

The section on the examination of the blood, which is one of the most difficult for the practitioner to master without direct laboratory teaching, has been made especially full, and, owing to the liberality of the publishers, a series of eight colored plates has been introduced into the text, the drawings being made by the author directly from the specimens as stained for routine examination. The practitioner, therefore, has an atlas of the diseases of the blood such as is given in no other published work. Besides these, the text has been embellished with numerous photographs of blood taken from various diseases in which the morphological findings are most important. The practitioner sees before him the exact picture which he would see through the microscope, the plates being entirely untouched, and representing naturally the exact conditions which they are intended to illustrate. Great stress is laid upon the practical details of blood counting, estimation of hemoglobin, and also on the testing of blood stains for the various blood pigments, while throughout the book the various tests for blood in the different excretions have been carefully amplified, with special directions for stomach contents and feces. Wood's "Chemical and Microscopical Diagnosis" devotes a very considerable space to the discussion of the blood findings in disease. The different anemias are classified and the morphological changes which are found are discussed in detail. Special stress is laid upon the changes in the blood in surgical conditions, in anemia in children, and in the obscure types of blood diseases intermediate between anemia and leukemia.

Malaria comes in for a full discussion. A colored plate shows the stained parasites of all forms of fever. The methods of dissection of mosquitoes, to demonstrate infection by malaria, are given, with diagrams, so that anyone may carry out the procedure, and the recently discovered parasitic diseases are also fully represented.

The acquisition of Porto Rico and Panama has rendered the subject of filariasis of immense importance to American physicians, as this disease affects one-fourth to one-half of the population of these countries, so that the practitioner will welcome a full description of the varieties and also photographs. The section on trypanosoma is also of interest to Americans, as it is found in the Philippines. The physicians of the North-West will be

interested in the discovery which has been made concerning the probable etiology of spotted fever.

The physician who has a laboratory at his disposal will find a very full discussion of the Widal reaction, of the methods of making blood cultures, and of the results which may be obtained thereby, and of the modern methods of testing for blood by the precipitin reaction. These procedures are more fully given than in any other English text-book.

The examination of the stomach contents and the feces is treated especially from the point of view of diagnosis. The practitioner is not asked to carry out a large number of procedures and then told that these procedures are of no practical value. The methods given are selected as the simplest and most practical.

The section on "Parasites" is very fully illustrated, and is thoroughly up-to-date, many illustrations being from photographs and drawings of specimens in the author's collection.

Under "Sputum," we may call attention to the completeness with which the methods of demonstration of the tubercle bacillus under various conditions are emphasized and described.

The chapter on "Urine" is one of the largest in the book, and contains much that is new and not to be found in other text-books of clinical diagnosis. The needs of the practitioner are consulted. An especial feature is the introduction of a number of pages giving the reaction of drugs when they appear in the urine. Special space is given to the detection of lead, the method usually given in text-books being quite erroneous. The frequency of lead poisoning, however, warrants a full discussion of a suitable method. The reactions of iodine in the urine are also given in full, and likewise those for mercury, the detection of the latter being especially important in connection with the treatment of syphilis.

Casts and crystals in the urine are illustrated by many photographs, as are the various other deposits found in that fluid.

A section is devoted to the results of recent methods of determining the functional efficiency of the kidneys from the point of view of surgical diagnosis. The only text-book which treats this subject fully is one translated from the German and now some four years old. The advances in these four years are fully presented by the writer.

The section on "Exudates" is illustrated by many photomicrographs of bacteria, while the exposition of the recent results obtained in the cytological examination of the pleural, peritoneal and spinal fluids occupies a number of pages. The injection of animals is considered and a plate gives the anatomical findings after the injection of the guinea-pig with tubercle bacilli.

Recent progress in infant feeding was largely developed by the study and analysis of the relation of human and cow milk. The methods of analysis of both fluids are fully given.

An appendix has been added, containing full directions for the making of staining fluids, the care and purchase of apparatus, the necessary reagents, the preparation of normal solutions, the cleaning of slides and cover glasses, and the removing of dyes from the hands, thus completing a very practical book.

The International Medical Annual. A Year-Book of Treatment and Practitioners' Index. Contributors: Prof. A. H. Carter, M.D., F.R.C.P.; Frank J. Charteris, M.B., Ch.B.; Wm. M. Brown-ing, M.D., Minneapolis; Prof. C. A. Ewald, M.D., Berlin; E. Henry Fenwick, F.R.C.S.; A. E. Giles, B.Sc., M.D., F.R.C.S.; Edward W. Goodall, M.D.; Wilfrid Jas. Hadley, M.D., F.R.C.S.; Prof. Græme M. Hammond, M.D., New York; Robt. Hutchison, M.D., F.R.C.P.; Robt. Jones, F.R.C.S.; Priestly Leach, M.D., F.R.C.S.; John MacIntyre, M.B., C.M.; P. Lockert Mummery, B.C., F.R.C.S.; Wm. Murrell, M.D., F.R.C.P.; Jos. Priestley, B.A., M.D., D.P.H.; R. J. Probyn-Williams, M.D., M.R.C.S.; Walter E. Rahte, M.D., Philadelphia; Prof. Boardman Reed, M.D., Philadelphia; Prof. A. W. Mayo Robson, D.Sc., F.R.C.S.; De Lancy Rochester, M.D., Buffalo; Prof. Robt. Saundby, M.D., F.R.C.P., LL.D.; J. W. Watson Stephens, M.D., D.P.H.; Purves Stewart, M.A., M.D.; Geo. Fred Still, M.A., M.D., F.R.C.P.; Prof. Ralph Stockman, M.D., F.R.C.P.; A. Hugh Thompson, M.A., M.D., F.R.C.S.; Wm. Thorburn, F.R.C.S., B.Sc., M.D.; Hunter F. Tod, M.A., M.B., F.R.C.S.; A. H. Tubby, M.S., M.B., F.R.C.S.; Joseph Turner, F.R.C.S., L.D.S.; J. W. Thomson Walker, M.B., F.R.C.S.; Norman Walker, M.D.; Otto Walker, M.D., Nordrach; P. Watson Williams, M.D., M.R.C.S. Twenty-third year. New York: E. B. Treat & Co., 241 and 243 West 23rd Street. 1905. Price, \$3.00.

To regular readers of the *International Medical Annual* any commendatory words of ours are quite unnecessary. To physicians who have not had the advantage of using such a work of ready reference we would say that it is worth a good deal more than the price asked for it. The *Dictionary of Materia Medica and Therapeutics* gives the reader, among other information, accounts of the newer synthetic drugs. The *Dictionary of Treatment*, arranged alphabetically, gives a review of medical and surgical progress for 1904 by many contributors. This is the principal part of the book, and occupies 510 pages. In Part III. there are some references to sanitary science. The 1905 volume is a little larger than its predecessors; but the price has not been raised. In looking through the volume, it is pleasing to note that the *CANADIAN JOURNAL OF MEDICINE AND SURGERY* appears pretty often among the references.

J. J. C.

The Marriage of William Ashe. By MRS. HUMPHRY WARD.
Toronto: William Briggs.

One of the charming novels of the season. A husband absorbed in politics, while the beautiful, vivacious, almost entrancing to the reader, Lady Kitty thinks all life's guerdons well lost for love's sake—a man's man for a hero, a womanly woman for a heroine—weak, perhaps, but very human. As some one has gracefully said: "In all Mrs. Ward's long gallery of distinguished heroines Lady Kitty most vibrates with life, and her story is likely to leave with its readers most of that fragrance of rosemary which is for remembrance."
W. A. Y.

The Outlook's April Magazine Number.—James Bryce, George Kennan, Edith Rickert, Garret P. Serviss and J. Horace McFarland are among the contributors to *The Outlook's* illustrated magazine number for April. Notable illustrations are those from photographs by Mr. James Ricalton of the siege of Port Arthur, accompanying Mr. Kennan's "Story of Port Arthur"; those picturing the marvels of photography in astronomy, as described by Mr. Serviss; the charming pictures of spring buds and blossoms with Mr. McFarland's "The Awakening of the Trees"; the fine architectural illustration of Mr. Maurice B. Biscoe's "Church Architecture," one of three informative papers on this topic; and the reproductions of the best work of "A Historian in Bronze"—Mr. James T. Kelley.

The New International Encyclopedia. Editors, DANIEL COIT GILMAN, LL.D., President of Johns Hopkins University (1876-1901), President of Carnegie Institution; HARRY THURSTON PECK, Ph.D., LL.D., Professor in Columbia University; FRANK MOORE COLBY, M.A., Late Professor of Economics in New York University. 21 volumes. New York: Dodd, Mead & Co. 1904.

To undertake so stupendous a task as the publication of an encyclopædia, such as this great work has already proven itself to be, is something few men would care to even contemplate. It must be remembered at the outset that this series of volumes does not consist simply of the old International Encyclopædia revised and here and there rewritten, because such is not the case. The New International contains very little indeed of what appeared in the old work, just a small portion of the text that has been found to have "successfully withstood the test of searching criticism," and "as satisfying the most exacting requirements," otherwise the work being new throughout.

The first point about the International that calls for particular attention, and one of the most important, is the very high literary standing of the editors. Their ability and intimate connection

with three of the foremost educational institutions in the United States, make them peculiarly well suited for so great an undertaking. It would be impossible to enumerate the names also of the contributors to the encyclopædia, suffice it to say that they include such men as F. Sturgis Allen, chief editor of Webster's International Dictionary; Fred. R. Bailey, M.D., College of Physicians and Surgeons, New York; David Josiah Brewer, LL.D., Associate Justice of the United States Supreme Court; Archibald Church, M.D., Professor of Mental Diseases and Medical Jurisprudence, Northwestern University Medical School; Adolphe Cohn, Ph.D., Professor of Romance Languages and Literature in Columbia University; Harry A. Cushing, LL.D., Lecturer in History and Constitutional Law, Columbia University; William Herbert Hobbs, Ph.D., Professor of Mineralogy, University of Wisconsin; Louis H. Gray, Ph.D., Associate Editor of the *Orient-alische Bibliographie*; Albert Warren Ferris, A.M., M.D., Associate in Neurology, College of Physicians and Surgeons, New York; David Starr Jordan, Ph.D., President Leland Stanford, Jr., University; Harold Jacoby, Ph.D., Professor Astronomy, Columbia University; Ed. W. Hopkins, Ph.D., LL.D., Professor of Sanskrit and Comparative Philology, Yale University; Lewis Fredk. Pilcher, Professor of Art, Vassar College; Alex. Dana Noyes, A.M., Financial Editor New York *Evening Post*, and hundreds of others equally well known in educational, literary and financial circles. The New International Encyclopædia can be safely said to be the most comprehensive and complete work of its kind in the English language. It recently received the Grand Prize at the Louisiana Exposition, the highest award in the gift of the directorate of that great World's Fair.

To attempt to say what it contains in its twenty-one volumes would be well-nigh impossible. On the other hand, what it does not contain might be summed up in but few sentences. It goes, almost in detail, into every subject, *e.g.*, geography, literature, law, medicine, religion, biography, science, anthology, climatology, anatomy, and vegetable life; in fact, so comprehensive is it that it would be nearly correct to state that on hardly any subject will the purchaser not find a fund of information which will many times repay the investment. One of the chief characteristics of the work is the attractiveness in which the subjects are presented to the reader, and the wonderful convenience of its general arrangement. The New International Encyclopædia is not a series or collection of monographs as is more than one of its competitors, but a most comprehensive compilation of subjects making it an every-day work of reference for popular use, its authors not making it too technical to be intelligible, but accurate, comprehensive, lucid and convenient, in other words, an ideal encyclopædia.

It has already been subscribed for by nearly 120 universities and colleges, 50 state normal schools, 20 state libraries, and by

over 1,000 Public Schools and libraries. That alone must of necessity prove its value as an encyclopædia.

A most valuable addition to the work as one suitable for a course of study is a companion volume, containing courses of reading, enhancing very much its value to those desirous of adding to their fund of knowledge upon almost any subject.

The International is splendidly illustrated with colored plates, maps, and engravings, which add immensely to its value. Perhaps the best manner in which to express an opinion of the book is to say, purchase it. It is worth every dollar charged for it, and you will never regret your bargain.

W. A. Y.

Medical Diagnosis. The Medical Epitome Series. A Manual for Students and Practitioners. By AUSTIN W. HOLLIS, M.D., Attending Physician to St. Luke's Hospital, New York; Physician-in-Chief to the St. Luke's Hospital Out-Patient Department; Attending Physician to the New York Dispensary. The series edited by VICTOR COX PEDERSEN, A.M., M.D., Instructor in Surgery, and Anesthetist and Instructor in Anesthesia at the New York Polyclinic Medical School and Hospital.

The above "Medical Diagnosis" is not descriptive of methods of examination or explanatory of physical signs. Nor does it deal with details, such as blood analysis, chemical analysis of stomach contents, etc., but simply a collection of symptoms of the various diseases which would be useful as a hand-book for the student, for examination purposes, and helpful to a practitioner in making a differential diagnosis.

The work is concise, complete and accurate in its symptomatology, and evidently prepared with great care.

A. R. G.

Mental Defectives: Their History, Treatment and Training. By MARTIN W. BARR, M.D., Chief Physician Pennsylvania Training School for Feeble-minded Children, Elwyn, Pa. Illustrated by fifty-three full-page plates. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904.

This work treats in an admirable way a much-neglected subject. It is an injustice to deal with weak-minded children as if they were all of the same grade. In the case of the idiot there is no well-founded hope of cure, and it is a waste of energy to teach defectives of this grade anything but the most simple facts; while, on the other hand, the training of many who are mentally below par secures an encouraging result in the imbecile, prevents backward children from degenerating into imbecility, and obtains for a considerable proportion of this class a degree of development which makes them useful citizens.

Those who have never been so situated as to be able to see many patients of this class would be surprised to learn what a large proportion of children are mentally unfitted to hold their own with their fellows of a similar age; and it is for a physician a large step in gaining a liberal education to spend a few days in a good school devoted to the education of the feeble-minded. Notwithstanding our boasted educational advancement, there are few civilized countries where so little has been done for these unfortunates as in Canada.

Dr. Barr's book is one of the very best upon a subject upon which much has been written in recent years. It would greatly enlarge the vision of many men who are in the practice of medicine and would enable them to give advice which would be highly beneficial, both to the patient and to the family who are seeking guidance in reference to the future of those who are mentally below a normal standard.

B. E. M.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By PROF. DR. CARL VON NOORDEN, Physician to the City Hospital, Frankfort, A.M. Authorized American edition. Translated under the direction of Boardman Reed, M.D., Professor of Diseases of the Gastro-intestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College; Physician to the Samaritan Hospital, Philadelphia, etc. Part V., Concerning the Effects of Saline Waters (Kissengen, Homburg) on Metabolism. By Prof. Carl von Noorden, Frankfort, and Dr. Carl Dapper, Bad Kissengen. New York: E. B. Treat & Co. 1904.

This treatise by Drs. von Noorden and Dapper deals with the effects of the mineral waters of Kissengen and Homburg on metabolism. In Ragocksy water (Kissengen) and in Elizabethquelle water (Homburg) the principal ingredient is chloride of sodium. The investigations were made principally on sick people. The following results were noted: (1) In gastric catarrh an active and permanent increase in the production of hydrochloric acid; (2) in nervous dyspepsia a decrease of hydrochloric acid; (3) it was found unnecessary to exclude fats, raw fruit, solids and vinegar from the diet; (4) the use of the saline water did not interfere with the absorption of the fats; (5) the use of the water did not increase the metabolism of the proteids; (6) the excretion of uric acid was slightly increased when dilute saline mineral waters were taken. The clinical methods adopted by the observers enabled them to pronounce decidedly on the effects of these saline waters on sick people.

J. J. C.

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Original Contributions.

THE NECESSITY OF PHYSICAL HEALTH IN ACQUIRING AN EDUCATION.

BY ALEX. THOMPSON, M.D., STRATHROY.

Mr. Chairman and Gentlemen,—In complying with the request to read a paper on some hygienic subject that would be of interest to teachers, I do so with considerable hesitation, as I feel you would be more edified and I better satisfied, had one more in touch with school hygiene than I am, been asked to address this Section of the Ontario Teachers' Association on the importance of having and maintaining good health, especially when receiving scholastic instruction.

The children of to-day, preparing for the battle of life will be the men and women of to-morrow, to take our places when we are laid aside. Have we realized the responsibility resting on us if we neglect to so train them that they may become useful citizens, healthy in body and with cultivated mental faculties?

There is not so much danger to the boys, they are more in the open air enjoying the outdoor games and sports, and not so prone to a breakdown of the physical and nervous systems as girls are. They are weaker physically and more sedentary in their habits. Besides their desk work in school and their studies at home they devote more or less time daily practising on the piano or some other musical instrument. Need we be surprised if a number of them suffer from nerve tire or neurasthenia.

Sanitarians, oculists and educational authorities for the last number of years have been, and still are, warning the public against the unsanitary condition of a number of our schools and playgrounds, on the excessive amount of desk and home work, the short time spent on physical training, the injurious effect of overloading the immature brain with matter difficult to understand, and if understood part of it of very little practical use in after life.

A prominent physician and sanitarian has said, "A physical or

mental wreck is a depressing sight at any period of life, but a breakdown at the very threshold, when foresight on the part of others might have prevented it, is sad indeed." Previous to the last fifteen years or so, physical training was sadly neglected in our Public Schools, and is yet in a number of them, especially in the rural districts. Nearly the whole of the time of the pupil (except the infant class) from 9 a.m. until 4 p.m., with the exception of the noon hour and fifteen minutes for intermission in the forenoon and the same time in the afternoon—about five hours daily—taken up in cramming the young brain with a large quantity of matter on different subjects, besides an hour or two at home worrying and wrestling over problems, memorizing, etc. And all that time spent and lessons studied, in too many cases, in unsanitary school-rooms, and probably in more unhealthy surroundings at home.

Need it be a surprise to us that a number of delicate and some robust children break down under such a strain with the nervous system shattered, the muscular system enfeebled, the sight defective from eye-strain—the internal organs, if not organically diseased, are functionally disordered, as evidenced by dyspepsia, torpidity of the liver, derangement of the intestinal canal, palpitation of the heart, headaches and other functional disturbances, too numerous to mention here. We see them to-day grown-up men and women physical and mental wrecks.

The old adage, "a sound mind in a sound body," is priceless. Education is necessary to success in life, but if acquired at the expense of that more precious gift, good health, it is worthless.

According to the report of the Director of Physical Training in the Public Schools of Washington, after stating the beneficial results of systematic daily exercises, he says: "It is impossible to test the full measure of success or failure of our efforts. It is in the remote future with school days long past, that the lasting influence of such work will be felt by the individual child."

It is gratifying now to learn that so many of the parents are realizing the injurious effects of over-study, unhealthy and overcrowded school-rooms, etc., and appreciating the beneficial results to both mind and body acquired by the means adopted to promote good health.

Another authority says: "The more rational mode of educating the young appear to be that of so training the body and mind that both advance as far as possible at an equal rate. Thus, if a child is of a weak constitution, but possessed of unusual mental capacity, it should be the aim of the teacher to strengthen the physical powers; and until that object is accomplished, to let the mind take care of itself. On the other hand, if the reverse is the case, to adopt contrary methods. The pupils should be studied separately, and children should not be lumped together in a body and put through the same course without regard to their different temperaments, dispositions and constitutions."

The first essentials of school hygiene are the site, the building, and the furnishings.

The Site.—The school grounds should be sufficiently large for a roomy playground, and if possible, be located on high dry land, preferably a sandy or gravelly porous soil. If those conditions cannot be procured it should be thoroughly underdrained, and if necessary, covered with a layer of sand or fine screened gravel. Shade trees should not be in too close proximity to the building to obstruct the sun's rays, if they are cut them down.

The School Building.—The essential requisites are ventilation, heating, lighting and furniture. Unventilated and perhaps overcrowded rooms, where children are constantly inhaling carbonic acid gas and other noxious vapors, poisoning the heart, lungs, brain, etc., is a prolific source of dullness of the intellectual faculties, lassitude, and a predisposition to disease.

Heating.—The rooms should be uniformly heated, as extremes of temperature in too many cases cause pulmonary and other diseases.

Lighting.—If the rays of light enter the room in front of the pupil eye-strain, causing many of the forms of neurotic diseases, is almost sure to follow. The light should come from behind and as nearly over the left shoulder as possible.

Furniture.—Seats with comfortable backs should vary in size, so that the pupil could sit comfortably and rest the whole foot firmly on the floor, otherwise he sits on the front edge of the seat, the upper part of his back against the back of the chair with, probably, the toes only touching the floor, causing round shoulders, flat chest, pelvic deformity and occasionally curvature of the spine. Desks should have a slight slope, reaching over to the front edge of the seat so that when writing the pupil may be sitting more or less erect as the usual type of lateral curvature of the spine is "that of the writing position," and nearly always originates during school life.

I would suggest that this section recommend the Association to interview the Education department, requesting that plans and specifications for sanitary buildings of one or more rooms be obtained by advertisement awarding a substantial prize to the successful competitor, said plans to be kept at the Education department and loaned, through the Inspector, to school trustees contemplating building.

Also, that a practical examination on school hygiene be a compulsory subject in the curriculum for a teacher's certificate, not so much for the purpose of teaching it to the pupil as to protect the health of the child during school life.

That the Inspector of Schools should make a thorough examination into the sanitary condition of the playgrounds, outhouses, and of the schools under his inspectorate, which is equally important, if not more so, than his investigations into the advances made by the pupils in their several branches of study.

That he give a lecture annually to the parents on school hygiene in the evening, or any other suitable hour of the day of his visit, notifying the teacher of the date of his school inspection.

THE TREATMENT OF CATARRHS, ESPECIALLY POST-NASAL CATARRH.

BY WILLIAM ERWIN, A.M., M.D., PHILADELPHIA, PA.

Our damp and variable climate, subject to sudden and great extremes in temperature, with frequent alterations in winter between freezing and thawing, doubtless serves to produce and perpetuate the condition so well known as catarrh. These climatic variations have a special influence upon the vascular system, causing dilatation of the capillaries of the surfaces of the body, followed by an equally marked contraction. The acute attack usually results from sudden changes of temperature, exposure to draughts of air, to cold and dampness, to sudden cooling of the surface of the body after being heated, to getting the feet wet, or to protracted exposure to low temperature. The consequence is that when driven from the surface, the blood tends to accumulate in the interior of the body, or, as generally occurs, in the mucous membranes (the inside skin of the body), producing an acute dilatation of their capillaries, or, in other words, an acute congestion, followed by inflammatory changes, an acute catarrh, or "a cold."

Catarrhal affections are usually sporadic, but may also occur as an epidemic. The epidemic form seems to have its origin in certain peculiar conditions of the atmosphere, which at the present time are not well understood.

Catarrhal inflammation is confined primarily to the mucous membranes, and may attack one or more of them, no matter in what part of the body they may be. The symptoms, course, and consequences will depend in considerable measure upon the location of the disease, and present a very broad subject for the consideration of the physician. The duration of a simple catarrh or coryza is variously estimated by different authorities at from two or three days to nine or ten days, but all seem to agree that the patient is left with an increased susceptibility to a fresh attack. My explanation, however, of this so-called predisposition to another attack is that it is really the remains of the previous one, which, when removed, leaves the person with no greater susceptibility than at first.

The condition is of essentially the same character, whether it be found in the mucous membrane of the nose, throat, bronchi, or the digestive tract. Every congestion of a mucous membrane is accompanied by increased activity of its glandular secretion.

At first the mucous membrane becomes swollen, each recurrence enhancing the swelling. The repeated congestions cause enlargement of the blood-vessels until a true varicose condition and great relaxation of the membrane result, with later an increase of connective tissue and hypertrophy. When this stage is reached the condition is called chronic catarrh. The secretions now often become greatly changed in character and usually more profuse. Later on, owing to impaired and perverted nutrition, the epithelial cells undergo degenerative changes, and the mucous membrane changes color, and becomes opaque and uneven. In some places it is covered with a thick layer of mucus or pus, while in others, where the epithelium is destroyed, it is dry and devoid of secretion, with a frequent formation of scabs and crusts, which often adhere firmly to the membrane beneath. At this stage the discharge may be thick or thin, scanty or profuse, and may resemble in appearance boiled starch, or may be of almost any shade of green, yellow, brown, or even black; occasionally it is bloody. If the secretion undergoes a special decomposition, a peculiar, penetrating stench is developed, and the condition is called ozena.

Age, occupation, habits of life, and sex have a very marked and strongly modifying or selective determining effect, as may be noticed in the tendency of infancy to croupous laryngitis, of childhood and adolescence to tonsillitis, etc. These occupations which are accompanied by noxious exhalations, or entail the necessity of breathing during working hours an irritating vapor or dust, are notably productive of asthma, bronchitis, and even of disease of the lung tissue itself, as is continually observed in furriers, stone-cutters, workers in dye-factories, gas-houses, woollen mills, etc. Most tobacco smokers develop more or less post-nasal or pharyngeal catarrh.

Mode of life as regards clothing may also be considered as having a powerful etiological influence in the production of catarrh. When we observe the careless exposure of head, neck, bust, arms, limbs, and feet of the young of both sexes, and of the female adult, almost regardless of season or climate, the wonder is that the very prevalent condition now under consideration is not universal instead of only general.

For the sake of brevity the pathology, diagnosis, and symptoms may be omitted, and for the same reason also the question whether catarrh is a constitutional or a purely local disease, need not be discussed here, because it has no practical bearing when therapeutically considered.

Acute catarrh occurring in a vigorous subject, if properly managed will result in complete recovery, but if neglected, mis-

managed, or occurring in a delicate person, unless carefully treated, it may so depress the vitality that entire recovery does not take place before a fresh attack increases the original trouble, and it is usually in this way that the chronic form of this disease is established. The old adage that "an ounce of prevention is better than a pound of cure," is nowhere better applied than in connection with this subject, because chronic catarrh is peculiarly liable to frequent acute exacerbations.

Chronic nasal catarrh is usually attended by partial or complete loss of smell, and, as is well known, has proved itself a very annoying and intractable malady, its worst feature being its stubborn persistence and tendency to extension in many cases. Many a case of phthisis owes its origin to a neglected catarrh.

The successful management of this class of cases involves a careful study and regulation of all of the habits of the individual. Many will be found who are insufficiently or improperly clothed, either a part or all of the time. The proper protection of the neck, throat, chest, and extremities by suitable clothing is fully as important as the proper covering of the trunk, and woollen is undoubtedly the best material to be worn next to the skin. It absorbs perspiration much more rapidly, and gives the skin far better protection against changes of temperature than any other material used for clothing. Particular care should be taken to keep the feet warm and dry. Persons who take cold easily and are in the habit of removing underclothing worn during the day, on retiring should have a change of equal warmth for night wear. Occupations involving exposure to irritating fumes, vapors, or dust should be interdicted, as well as unusual exposure to cold and dampness.

Catarrh, in common with all other forms of chronic disease, requires great perseverance in treatment to bring about a favorable termination. Left to itself its tendency and course are invariably to spread from its starting point to contiguous mucous surfaces, as well as to the deeper tissues. The mucous membrane is liable to undergo hypertrophy, with the formation of polypoid excrescences, or the condition may assume a suppurative character. Hence ulceration, atrophy, and destruction of mucous membrane and underlying tissues, ozena, and caries or necrosis may be named as ultimate results of neglected nasal catarrh; hence the importance of timely treatment before it becomes so deep-seated as to make serious inroads upon the resisting power of its victims.

Every subject of catarrh should be instructed how to keep the accumulated secretions frequently removed by either the nasal douche, or better, the atomizer, using a warm alkaline solution.

or a warm solution of common salt. The atomizer is far superior to the douche, because its spray easily reaches every part of the air passages, and by the use of the recurrent spray tip all accumulated secretions in the pharyngeal vault and the posterior nares can be more thoroughly removed than in any other way. This method of cleansing the nasal passages should be repeated from two to four times a day in all cases of chronic catarrh. A thorough cleansing having been accomplished, the parts are then ready for the proper medication.

In a practice covering more than twenty-five years I have used a large number of remedies in the treatment of catarrhal conditions, only to find none that were reliable until my attention was called to protargol.

The large majority of cases coming under treatment require a mild, non-irritating disinfectant and astringent, and none better has yet been presented than protargol. In the past silver nitrate has probably accomplished more in curing chronic catarrhal conditions than all other remedies combined, yet it has two serious drawbacks. It is entirely too irritating, which defect prohibits its use in many cases otherwise perfectly adapted to it. Owing to the ease with which it combines with the albuminous elements of the secretions and the surface epithelia, its action, besides being harsh and irritating, is too superficial to be satisfactory. Its unsightly stains of the skin and clothing are also highly objectionable.

In protargol we have a proteid silver salt which overcomes both of the objections to the nitrate. It acts without producing irritation; even the transient burning sensation following its use can be very greatly lessened by the addition of some bicarbonate of soda to its solution. It shows no tendency to coagulate albumin, and therefore manifests in full its therapeutic effect. Neither is it escharotic, and yet it acts deeply upon the mucous membrane as a powerful disinfectant and alterative, quickly arresting supuration and ulceration in almost all cases. Fresh stains of protargol are instantly removed by washing in water; stains that have become dry are readily removed by sodium thiosulphate or ammonium persulphate. Its solutions are stable, being unaffected by light, air, or heat. In short, protargol fills in an eminently satisfactory manner "a long-felt want" in the management of catarrh.

Post-nasal catarrh is best treated by a two to five or six per cent. solution, applied by a recurrent spray, the addition of soda bicarb. being in my experience very agreeable and satisfactory. Occasionally, though very rarely, a case will do better on a one per cent. solution, and I have never used a solution of greater strength than six per cent. to the nose or throat.

Persevering treatment usually reduces enlarged turbinated bones to a size which does not interfere with easy respiration through the nose, but if this desirable result is not obtained by medical measures, their surgical removal then becomes necessary. Exostoses of the septum which interfere with easy respiration should also be removed.

Adenoid excrescences, as frequently found at the vault of the pharynx, and polypi, either within the nasal fossæ or in the post-nasal space, usually require a resort to surgery for their removal.

Pharmacology and *Therapeutics.*

IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(Eng.)

THE VALUE OF LACTO-GLOBULIN IN WHOOPING-COUGH, INFANTILE DYSPEPSIA, ETC.

CARLOTTA T., whooping-cough, aged 10. History of phthisis in family. The child has a tubercular appearance. She developed whooping-cough on March 6th. Her paroxysms were very distressing and she retained scarcely sufficient food to support her system. Tried several varieties of infant foods but they were not retained. From her tubercular history and her cachexia I became quite alarmed at her condition. Tried Lacto-Globulin—teaspoonful to cup of water—and after persisting for some days, although it was frequently rejected, she retained sufficient to keep up her nutrition, which was in the meantime being built up with Parrish's Chemical Food. She improved most satisfactorily.—M.D., Toronto.

Baby D., aged 6 mos., infantile dyspepsia This child had run the gamut of baby-killing foods, was thin, emaciated from diarrhea and vomiting. Father and mother healthy. Cut off all food except barley water, sweetened with Nestle's Condensed Milk, with immediate good results. Fearing there was not enough proteid in this for the infant's future good, I added, as an additional feeding, $\frac{1}{2}$ dram of Lacto-Globulin to cup of water, with great satisfaction. Infant now gives every promise of surviving.—M.D., Toronto.

J. S., aged 67. Valvular heart disease. Contracted la grippe March 3rd; went through usual course; patient very feeble; incessant nausea and vomiting; could not retain lime-water; advised in despair Lacto-Globulin; teaspoonful to cup of warm water. this he could not retain—changed to cold water, same proportion of Lacto-Globulin This he retained and was sole diet for a week; then gradually added broth and soup to diet regimen. Patient at present much improved.—M.D., Toronto.

IODIPIN: ITS PHYSIOLOGICAL AND THERAPEUTIC IMPORTANCE.

BY LUDWIG HESSE.

THOUGH the recognized curative effects of Iodine have led to its very extensive therapeutic application, the disagreeable, and in some instances dangerous, action of this metalloid and its salts has given rise to a pressing demand for some Iodine compound that would be free from such objectionable properties, or have them only in a less degree. It would be unnecessary on this occasion to consider the relative merits and demerits of the Iodine preparation that are in most general use. My object is to direct attention to Iodipin—a preparation that has been but recently made known. Its preparation is based upon the well-known property of fat to combine with the halogen, the capability of forming Iodine addition compound being proportionate to the position of the fat in the series of unsaturated fat acids as their triglycerides. To effect the addition of Iodine in the preparation of Iodipin, sesame oil is treated with Iodine monochloride; other kinds of oil may be used for the purpose, but sesame oil is preferable, on account of its great digestibility, freedom from taste, and general agreeable character to which attention has been directed by V. Norden and Stieve.

Iodipin is prepared as an article of commerce by the firm of E. Merck, at Darmstadt, in two states of concentration: 1. 10 per cent. Iodipin, containing 10 per cent. of the halogen, and applicable chiefly for internal administration; 2. 25 per cent. Iodipin, containing 25 per cent. of halogen, and specially adapted for injections.

The 10 per cent. preparation is scarcely distinguishable in appearance or taste from the natural sesame oil. When suitably kept it does not undergo decomposition, but preserves its character as a pale yellow oily liquid, having at 20° C. a specific gravity of 1.025, insoluble in water or alcohol, but readily soluble in either benzene, chloroform or petroleum spirit. The ether solution shaken with silver oxide or mercuric oxide does not give off its iodine. When treated with caustic alkalies, iodipin is split up and the solution acidified with nitric acid gives a precipitate of argentic iodide on addition of a soluble silver salt. When Iodipin is mixed with fixed alkaline carbonates and incinerated, the aqueous solution of the ash gives the reactions of alkaline iodides. Mixed with concentrated sulphuric acid Iodipin becomes dark colored and swells up. Above the dark colored column of liquid there is a violet colored zone of Iodine vapor. Iodipin does not dissolve in concentrated nitric acid, but when heated with it to the boiling point becomes dark colored and suddenly evolves Iodine vapor with explosive force.

The 25 per cent. preparation has the appearance of a thick

viscous oily liquid of the consistence of honey in cold weather, and then requiring to be warmed before it is fit for use. It has a specific gravity of 1.227, and gives all the reactions above described in the case of the 10 per cent. Iodipin. It is more or less red or violet colored, but the color is not the result of decomposition, and is attributable in some way to the sesame oil, which is stated by Merkling to contain a minute quantity of a resinoid substance; by Villavechia and Fabris an alcoholic oil which gives with several re-agents the well-known Boudouin reaction that is observed in greater or less degree with the high percentage Iodipin.

The careful physiological observations, instituted principally by Winternitz, show that the absorption of Iodipin takes place not in the stomach, but almost invariably in the intestine. They also prove that the Iodized fat introduced into the system is for the most part deposited as such, and does pass into the circulation. If Iodipin were subject to rapid oxidation in the system the Iodine thus set free in considerable amount might be productive of deleterious effects; but in regard to the doses employed for medicinal purposes that possibility need not be considered. The deposition of Iodipin in the body holds good, not only in regard to that administered per os, but also for that administered subcutaneously, as well as per rectum. The investigations relating to rectal absorption are not, however, yet complete.

The assimilation of Iodized fat takes place generally. Not only does the rendered fat of the abdominal cavity and the subcutaneous cellular tissues contain Iodine, but Iodine is also present in the ether extract of almost all the organs, especially the muscles and the bones. Next to the liver the bone marrow contains the largest amount of Iodine.

The Iodized fat does not pass into parts of the body with its original amount of Iodine, a small proportion of that amount being previously separated. According to Winternitz, that takes place through the minutely divided fat globules circulating in the blood being altered superficially by contact with alkaline salts, while the interior portions of the fat globules retain the full amount of Iodine.

The circumstance that the assimilated Iodized fat is partially deposited in the interior of the body, and that, consequently, considerable quantities of Iodine may be introduced by means of Iodipin without danger, constitutes a very advantageous distinction between that preparation and certain other new Iodine media.

The investigations carried out by Scheele have demonstrated that the consumption of Iodovasogen is not to be regarded as constituting a substitute for internal administration of potassium iodide, and Winternitz has also shown that the consumption of Iodine in the form of vaselinol, Iodovasogen or potassium iodide, together with simultaneous consumption of food containing fat or fat-forming ingredients, does not have the effect of causing any appreciable assimilation of Iodine in the body. Assimilation takes place under such conditions only when potassium iodide is admin-

istered, and only to a minute extent at three places—in the bone marrow, in the lacteal glands and in the hair. These observations have been fully confirmed by Benedix and Caspari. The latter proved that when a solution containing potassium iodide and free Iodine was administered under the most favorable conditions there was no recognizable synthesis of iodized fat; on the other hand, he proved that when iodized fat was consumed no inconsiderable quantity of it passed from the food into the milk.

On the basis of such observations there is reason for regarding Iodipin from a physiological point of view as a highly-interesting preparation, the advantage of which centres in the fact that it is partially assimilable in the body and then is capable of gradually supplying from that store of iodine sufficient quantities in proportion to the progress of oxidation, and the action exercised by the alkalinity of the blood to develop its effects.

Granting that an hereditary or acquired predisposition or a similar condition produced by sickness may be one of the chief determining causes of the accessory effects of Iodine, it must also be remembered that for accessory effects to be produced, the occurrence of assimilation or excretion is essential, and that acute iodism depends upon the irritating action of Iodine or Alkaline iodides upon the alimentary canal. In the case of Iodipin the conditions of assimilation and elimination are essentially different from those obtaining in regard to alkaline iodides and other Iodine preparations. With the former a few minutes are sufficient to allow of the salt being diffused in considerable quantity from the stomach in the secretions and excreta.

When Iodipin is administered per os Iodine appears in the urine within ten or fifteen minutes: but the elimination of the entire quantity taken does not take place within a short space of time; but, in contradistinction to the results produced by other Iodine preparations, only after a much longer period has elapsed. The elimination of Iodine is still more retarded when Iodipin is administered subcutaneously. Klingmüller and Lowenheim, found, in experiments with animals, that even after the lapse of seventy days there were still traces of Iodine in the urine. When Iodipin is assimilated as a result of subcutaneous injection it is turned to account in the most effective manner. Klingmüller was unable, in repeated trials, to obtain any evidence of Iodine in the feces in a state of organic or inorganic combination.

In the administration of Iodipin therefore, Iodine is not only more gradually and uniformly eliminated than when administered in any other state of combination, and the diseased organism is consequently subjected to its influence more continuously and equally; but it may also be expected that the iodized fat is assimilated at the seat of disease and is there gradually liberated to exercise its heating influence. There is therefore no necessity to consider the questions whether the Iodine deposited with iodized fat is deposited as such and is there transformed in the circulation into alkaline iodide or whether the assimilatory properties of the

Iodine salts thus formed in the system are to be ascribed to the influence exercised by leucocytes in such a manner that the alkaline iodide present in the blood or in the tissues is decomposed at the seats of greatest metamorphosis, that is to say, in the leucocytes, and thus liberated Iodine endowed with even increased assimilatory capacity.

Besides the elimination of Iodine as potassium iodide through the kidneys, some is also eliminated through the salivary glands. According to Klingmüller, there is also in addition to the conversion of Iodine into potassium iodide, another form of conversion in the organism which manifests itself in the excretion of an organic Iodine compound in the urine. At present the question whether this kind of Iodine metamorphosis is of the therapeutic importance has not yet been settled.

All observers are in accord that the use of Iodipin as anticipated is not attended with those disagreeable accessory effects that are so marked a result of the administration of potassium iodide. When administered internally, Iodipin very rarely causes iodism, and when it does occur, the symptoms are not so pronounced or extended as in the case with the alkaline iodides.

On the contrary, favorable mention is made of the influence exercised by Iodipin on the alvine evacuation and the increase of nutrition brought about as a consequence of internal or subcutaneous administration of Iodipin. Similar evidence is given as to the absence of any disinclination to taking it. In the case of some patients who are sensitive to the oily taste, it has been administered with warm milk or coffee, or mixed with some peppermint oil or cognac, and after each dose it is advisable to chew a piece of brown bread.

Naturally it might be anticipated that Iodipin would prove useful in all diseases in the treatment of which iodine salts has been found beneficial. These expectations have been fully confirmed. O. Frese has employed it in cases of bronchitis, bronchial asthma and emphysema with very satisfactory results, and he has administered the 10 per cent. preparation in doses of two or three teaspoonfuls daily. Frese's experience was thoroughly confirmed by Kindler, who found that asthmatic patients treated with Iodipin very rapidly obtained relief of bronchial symptoms. The chief applications of Iodipin are in the treatment of the manifold forms of serophulous and syphilitic disorders. Reports as to its use in such cases are published by Losio, Burkhart, Rosenthal, Radestock, and more especially Klingmüller. All observers agree as to the efficiency of the preparation. In the treatment of all kinds of tertiary syphilis the use of Iodipin is stated to give especially good results, whether the symptoms of disease present themselves in the muscles, the bones, the intestines, or the nervous system. Similar results are reported in cases of arterial or other forms of vascular aneurism, as well as in some cases of tabes.

Burkhart prescribes Iodipin in daily doses of two or three teaspoonfuls. Radestock, who holds that all Iodine preparations

should be administered in much larger doses than have hitherto been customary, prescribes Iodipin in doses of 40 to 50 grammes daily. For administration in such large doses no preparation could be more suitable than Iodipin on account of its being uniformly and gradually assimilated. Klingmüller carried out a very large number of observations in the Neisser Hospital at Breslau, and he decidedly prefers to administer Iodipin subcutaneously (not intramuscular) rather than per os. Among several hundred cases in which it was injected, he has never met with one instance of Iodism being caused, as was incontestibly shown by the fact that the subcutaneous injection was not accompanied by any disturbance of the stomach or intestines. Moreover, Iodipin is absolutely non-toxic, even when administered subcutaneously in very large doses, and in the case of patients who cannot or will not take Iodipin per os, it is possible by means of subcutaneous administration to carry out a vigorous treatment with Iodine; that the Iodine administered in that manner is assimilated and actually becomes efficacious has already been shown. The elimination of Iodine after injection takes place somewhat slowly, not until after the lapse of from two to five days. It is therefore desirable at the outset to accompany the injection method with internal administration if it be requisite to produce an effect rapidly. Subcutaneous injections can be carried out in the gluteal region or in the skin of the back; they do not cause pain or inconvenience. For this purpose the 25 per cent. preparation is to be preferred, because of the smaller quantity necessary for introducing a given dose of Iodine. Klingmüller declares that Iodipin has a quite specific action in cases of tertiary syphilis. Both Klingmüller and Kindler consider that subcutaneous injection is the most convenient and appropriate method of administering Iodipin. Both agree that the injection of large doses is free from danger, and that curative results are most rapidly effected in that way. They inject 10 c. cm. of the 25 per cent. preparation daily in the gluteal region and for several days in succession. Before being used the preparation requires to be warmed to the temperature of the body, and the canule used should be as wide as possible, pushing them gradually under the skin after having rendered the spot anesthetic by the application of ethylchloride. The injection is painless and does not lead to the formation of abscess.

Reports of the satisfactory effects of Iodipin in cases of habitual headache, adipositas nimia, scrofulous affections of the ear, neck and eyelids have been made by many observers. Even in the worst cases of long standing tertiary syphilis, accompanied by destructive change of the muscular tissues and bones, the beneficial action of Iodipin has not been found to fail. The persistent pain in the limbs and bones has been relieved, the general sensation and the appearance of the patients being also improved. Similar results have attended the use of Iodipin in numerous cases of primary and secondary, as well as hereditary syphilis. Kindler's experience was of the same nature. Syphilitic patients, with bad

brain symptoms, who had been treated without effect with potassium iodide showed improvement within five days after the commencement of injection of Iodipin. In the case of one patient suffering from spinal syphilis with pains in the back, spasms of the right leg and incontinence of urine, very excellent results were produced. The incontinence first subsided then the spasms and the pains in the back without any bad effects being apparent in any of the cases. Similar results were obtained with a patient suffering from syphilitic abscess and ulcerations of the nose, who had undergone various forms of treatment by inunction. After six days' treatment with Iodipin the abscesses healed.

Quite recently Iodipin has been made the subject of physiological investigation. Proceeding from the fact established by Winternitz, that under normal action of the stomach the saliva gives indications of containing Iodine within a quarter of an hour to three-quarters of an hour after Iodipin has been administered, Winkler and Stein have made use of this means to ascertain disturbances of the functions of the stomach. They made use of freshly prepared starch paste paper, saturated in a dark place with a 5 per cent. solution of ammonium persulphate. Strips of this paper were moistened at one end with saliva every fifteen minutes. The smallest trace of Iodine was rendered perceptible by the coloration of the paper until its intensity increased to dark blue. The occurrence of this reaction was, however, very much retarded when the function of the stomach was disordered, as in gastroparesis, dilatation of the stomach, and carcinoma.

Although Iodipin has only been recently introduced, this addition to the resources of medicine has already gained many friends, and the results of experience gained with it afford reason for believing that in Iodipin a very valuable remedy has been placed at the disposal of the practitioner that will continue to command attention.—*Pharmaceutische Centralhalle*, No. 1—1900.

DIABETES MELLITUS.

BY CHARLES H. POWELL, A.M., M.D.,

Professor of Physical Diagnosis and Clinical Medicine, in the Barnes Medical College, St. Louis, Mo.

It is said that this disease is greatly on the increase all over the world. Certain it is, every physician of any practice comes in contact with diabetic patients commonly enough. One of the earliest conditions that bring the victims of this disease to the doctor's office is polyuria. These patients pass large quantities of urine both by day and by night. They wake up thirsty, retire thirsty, and their sleep is often disturbed; partly on account of the urgent desire to micturate and partly on account of their intolerable thirst. Many diabetics have a ravenous appetite, but in spite of the large

quantities of food consumed they lose ground at a rapid rate; becoming emaciated, anemic, and presenting a drawn, pinched countenance. In most cases the skin is dry, and night sweats are added to the other sufferings. A quiet sedentary life within doors, mental occupation, worry and anxiety, always aggravate the existing conditions, as manifested by higher specific gravity of the urine, eruptions on the neck, particularly of successive crops of furuncles, muscular twitchings, which are due directly to the irritating effects of the sugar on the nerve ganglions, and varied sensations of uneasiness in the minds of the sufferers that in turn perpetuate the trouble, and hasten complications which generally lead to a fatal termination.

We are all familiar with the tests for melituria: suffice to say, when it is present to any extent, as it always is when a patient presents these manifestations, any of the usual tests, as given in our text-books, are reliable. Fehling's test is the one most commonly used—producing, when added to the urine and heated to the boiling point over a spirit lamp, the red oxide of copper, as shown by the reddish brown discoloration imparted to the diabetic urine. The Bismuth test is applied by adding equal parts liquor potassa to the urine, and a small pinch of bismuth, which, upon the application of heat, will form a markedly black solution. A more reliable test is the yeast test, which I use in the following manner: To a test tube, filled with urine, and which has been inverted over a tray of urine, add a small piece of yeast, place aside for the night: if sugar is present, by the following morning the urine in the test tube will have been displaced.

As to the causes of diabetes, we must admit our lack of knowledge in determining them in not a few cases. In some we find evidence of pancreatic disease; in others, tumors in the fourth ventricle; in others, hepatic disease; and in proportion to the obscurity involved in a given case, the treatment has been anything but satisfactory. First in importance is a regulation of the diet, by eliminating sugar. suitable substitute is to be had in saccharine and glycerin. Patients should dress warm in cold weather; bathe frequently; take plenty of exercise in the open air, avoiding fatigue, and shun every cause of mental anxiety. The treatment, medically, should be directed towards strict attention to the following points:

First.—To correct existing disorders of the gastro-intestinal organs.

Second.—To secure refreshing sleep.

Third.—To treat the disease with appropriate remedies.

I have frequently used, in treating diabetic patients for the various distressing symptoms, lactic acid; arsenic and strychnia; iodide of potassium; malt; cod-liver oil and hypophosphites; also trional and sulfonal in ten to fifteen grain doses in hot milk at bed time. To cure the disease, is, however, the sheet anchor upon which we must rely in the selection of our drugs, and until recently I had given up all hope of such results. My attention was called to

eulexine, which has been aromatized and put up for physicians use in the treatment of diabetes. I have tested its therapeutic action on a most aggravated case, a patient 30 years of age, and the results were all I could ask and far more than I expected. The preparation includes the active alkaloidal agents of a combination of *Eugenia jambolana* and *Ilex paraguaiensis*, extracted by such a method that all the active principles are preserved.

For dispensing purposes it is prepared as liquor eulexini aromaticus, which holds in solution all the alkaloidal constituents (eulexine) which are combined in a highly potent form and preserved in glycerin.

It is especially efficient in controlling the thirst, and arresting the formation of sugar. Good effect is noticed after a few days' treatment and patients gain in strength and weight. The quantity of urine is lessened and sugar diminishes steadily until entirely absent from kidney excretions. During the past year it has been under clinical observation by some of America's leading medical professors and practitioners who pronounce its action as eminently satisfactory.

In the treatment of my patients the dose was one-half to one teaspoonful in a little water every four hours, and I have yet to meet a case where the best possible influence has not been exerted upon the causes of the trouble. It will promptly relieve the pain in the back, and the bowels are relieved from their constipated condition after a few days' treatment.

Formula: Eulexine 10 per cent.; *Rhamnus Purshiana* 20 per cent.; Aromatics and Glycerin, q. s.

No. 2 Lewis Place.

School Hygiene.

THE DUNDEE SOCIAL UNION.

SCOTLAND is moving in the direction of school hygiene. The Social Union, a vigorous organization in Dundee, Scotland, have caused to be prepared, under their direction, reports on the physical condition of children attending four schools under the Dundee School Board, and two voluntary schools.

One thousand children were examined, none of these being specially selected. There seems to have been no lack of workers. Apparently the spectacle of public work neglected because everybody is "too busy," is not so common in Dundee as it is here. These reports have been prepared for publication under the direction of the Medical Officer of Health of Dundee, Dr. Charles Templeman, by Miss M. L. Walker and Miss Wilson. Five physicians made the necessary medical examinations, the boys being assigned to Dr. A. P. Low and the girls to Dr. Emily C. Thomson, while three other physicians reported on the condition of the eyes and ears.

It has been found that the boys and girls attending the elementary schools were, in weight and height, below the average of those of the same age attending the Harris Academy, a secondary school in Dundee. Comparison with the British standards (chiefly from the work of Mr. Francis Galton and the Anthropometric Committee of the British Association) shows that, both in weight and height, the children examined are below the average. The difference is striking. Compared with Mr. Galton's figures for height, the height of all the boys, of the ages of five to thirteen years, attending the Dundee elementary schools is below the average, and the average weight of boys of thirteen years is no less than nine pounds below Mr. Galton's average. Girls twelve years of age, attending the Harris Academy in Dundee (a secondary school where the home conditions of the pupils are good), are, on an average, nine pounds heavier than girls of the same age, attending the elementary schools in Dundee.

This work and this information is of the highest national importance, and the Dundee Social Union is to be congratulated on what they have already done.

H. M'M.

A SCHOOL HYGIENE DEPARTMENT.

A new Department of the Ontario Educational Association was formed on Wednesday, April 26th, at 10.00 a.m., in the new Medical Building of the University of Toronto, to be called the School Hygiene Department. All engaged in teaching, or in medical work or practice, and anyone else interested in the subject, are invited to join this new body. Dr. A. P. Knight, of Kingston, was elected President, and Dr. Goodchild, of Toronto, Secretary. Dr. Knight, who has taught in Ontario Public Schools, Collegiate Institutes, etc., showed himself conversant with all matters pertaining to School Hygiene, and made an excellent Chairman. The meeting was well attended, nearly all the members of the Provincial Board of Health being present, and was decidedly enthusiastic. Dr. Alex. Thompson, of Strathroy, presented the excellent paper which will be found elsewhere in this number, and gave rise to a good discussion, Dr. Bryans, Dr. Cassidy, Dr. Kitchen and others taking part.

The following Resolution was prepared and sent on to the General Association from this section.

Moved by Dr. A. P. Knight, Queen's University, Kingston, seconded by Dr. Helen MacMurchy, and carried unanimously:

That this Association desires to direct the attention of the Educational Authorities of the Province to the necessity of increased practical work in connection with School Hygiene, and especially to the importance of proper and systematic Medical Inspection of Schools; and

That the following Committee be appointed to lay this matter before the Honorable the Minister of Education, and to co-operate with the Provincial Board of Health, the Ontario Medical Association, the International Conference on School Hygiene, and any others interested in this important subject, and to report to the next annual meeting of this Association. John Ball Dow, President; President Loudon, Principal Gordon, Chancellor Burwash, Provost Macklem, Chancellor Wallace, Rev. Dr. Teefy, Hon. S. H. Blake, Professor MacCallum, Principals Scott, White, Dearness and Embree, Dr. Oldright, Dr. Sheard, Dr. Hodgetts, Dr. Connell; Inspectors, Robb, J. L. Hughes, R. H. Cowley, Silcox; Trustees, G. H. Wilson and Parkinson, T. H. Smyth, W. D. Spence, W. J. Hendry, S. B. MacCready, Miss Watson, Dr. Clara Benson, Miss Davidson, Miss Maud Lyon, and the mover and seconder of this motion. The President and Secretary of the section on School Hygiene to act as Convener and Secretary of this Committee.

Vision in School Children.—Only 522 of the Dundee children examined could see to read the standard types at the proper distance, and only 260 had normal refraction.

Heart Disease in Children.—Of one thousand school children examined recently in Dundee, Scotland, it was found that seventy-five had some cardiac disease. Thirty instances of valvular lesion were found among the boys.

Children's Teeth.—Dr. E. Rice Morgan, Medical Officer of the Upper Division of the County Borough of Swansea, has just concluded an examination of the teeth of 295 boys and girls in the Swansea schools. Out of all these children only eleven were free from defective teeth, and on an average each child had more than three decayed teeth.

Cerebro-Spinal Meningitis.—The appearance of this dreaded malady in its epidemic form in New York and Germany, and probably elsewhere, is unfortunately no longer a matter of doubt. During January, February and March, of 1905, there were over 550 deaths from this cause alone in New York City, a greater number than from any other cause except pneumonia and pulmonary consumption.

Enlargement of the Thyroid Gland.—There is some reason to think that an unusual number of cases of enlargement of the thyroid gland have been seen of late. Dr. Burns reported an interesting case at a recent meeting of the Toronto Medical Society. This was a congenital case, and the infant did not long survive its birth. In Toronto General Hospital there have been several cases in young patients, and in private practice in Toronto a number of other cases among young girls have been observed.

H. M. M.

Infectious Diseases in Schools.—Dr. Myer Coplans, Medical Inspector of the schools under the Gloucestershire Education Committee, examined over 6,000 children in the Stroud district with a view to finding out whether or not the schools spread infectious diseases. His conclusion is that the school is not so much to blame for the spread of infectious diseases as is sometimes supposed. Perhaps not, but how did Dr. Coplans find out, and what are we to think of such facts as that 177 children out of 1,000 in Dundee were found to be suffering from verminous diseases? There is a vast field for preventive medicine in schools.

H. M. M.

Selections, Abstracts, Etc.

SANITARY AND MEDICAL WORK IN THE JAPANESE ARMY.

BY MAJOR LOUIS L. SEAMAN, M.D.

A CRISIS is at hand for the authorities of the United States to decide, a military question of the gravest importance; namely, whether the Medical Department of the American army shall remain in its present utterly deficient condition owing to lack of numbers, organization, and power to cope with the emergencies certain to arise in any great conflict, as was so humiliatingly proved in our late war with Spain, or whether it shall be reorganized upon a basis in keeping with the most advanced thought and science of the age.

In considering this subject, Congress cannot do better than take a wholesome lesson from the example Japan is now giving to the world, for I unhesitatingly assert that we are as far behind the Japanese in matters of military medical organization and sanitation as the disciples of Confucius in the days of Kublai Khan.

The writer recently returned from the scene of conflict now raging in the Orient. He was led thither after a personal experience in Porto Rico and Cuba in the Spanish-American war in 1898 and the war in the Philippines in 1899-1900. In these countries he had seen two great armies largely invalidated and decimated through the effects of a wretchedly inappropriate commissariat, while the great causes of mortality were ferments, toxins, and microbes rather than bullets. The death-rate among the men from these preventable causes was so appalling that he desired to see the results of a war in which the effects of powder and shell played at least an incidental part in the tragedy, and in which soldiers qualified for something besides admission to hospital wards.

He was astounded, as was the rest of the world, at the marvellous success of the Japanese, and set about to study the methods by which they had attained it. He found various reasons given for Japan's uninterrupted series of victories; courage and bravery, perfection of detail, a fanatical spirit of patriotism inspired by the devoted self-sacrifice of the entire people, being

among the theories advanced; but, on deeper study, he saw that the real reason for Japan's achievements lay in her masterly preparation for war, a preparation the like of which has never been recorded in history. Japan is making war on strictly scientific principles; she is making it a national business. She is not experimenting with conditions that arose after the clash of arms, and already she has taught other nations profound and convincing lessons in many fields, the most impressive of which is that the normal condition of the soldier is health, and that those who die in war should die from wounds received on the firing line and not from preventable disease in quarters.

Ten years ago, at the conclusion of her war with China, Japan found herself in possession of Port Arthur and the Liaotung peninsula. This territory was permanently ceded to her by the terms of the Treaty of Shimonoseki, signed in 1895. Later she was ousted from it by the concert of Russia, Germany, and France, England weakly acquiescing. Unable to cope with these allied powers, which ostensibly and hypocritically stood for the "territorial integrity of China," but really for their own cunningly laid plans to plunder China themselves, she was forced to relinquish the fruits of her victory and to accept instead a small monetary indemnity and the island of Formosa.

Right there modern statesmanship sprang into full existence in Japan. Robbed of her legitimate conquest, a great light dawned upon her. Her statesman foresaw that not only would China be despoiled by the other nations, but that her own independence was imperilled, and that in time, if she did not resist, she would be reduced to a state of vassalage to the new occupant of Manchuria. She saw one paw of the Great White Bear already clutching Port Arthur, while the other was stealthily pushing its way down through Korea with claws extended ready to reach across the straits to Japan.

From that moment Japan began to prepare for war, not from motives of revenge—she put aside the memories of her trials and disappointments, except for their inspiration in battle—but for her very existence as a free and independent people. She prepared for a war that should not be a campaign of weeks, or months, but of years, if necessary. No detail, however, insignificant, was overlooked. Her heart and soul were in the work, and the result was a preparation such as was never known before.

The most wonderful part of her wonderful military development I shall endeavor to describe in this article. Japan's student-statesmen had learned that, as a rule, five men die of disease in war to one from injury by missiles. She decided that this enormous waste was needless, and she set herself to correct it. She established the largest, richest, and best-equipped

Red Cross hospital system in the world, a system now embracing more than twelve hundred thousand members and with stations in every part of the Empire. She equipped this system with hospital ships perfect in every detail, and rented them out as liners until they should be needed in war, the rental paying for their maintenance and also a handsome profit on the investment.

Long before the war began, the store-rooms of the Society in Tokyo were crowded with wagon-loads of surgical dressing material, cots, tents, bedding, ambulances, and uniforms for nurses. In addition to making these preparations, the Society had been training nurses for military service, and in Tokyo, where its hospital has a capacity of two hundred and fifty beds, there were two hundred and sixty nurses to care for the patients.

All this was only a small part of the advance she made over other nations in the medical side of her preparations. Her students had absorbed the most progressive methods of the great medical schools of the Occident. They saw that, if their army was to be kept well in the field, preventable disease must be controlled. They industriously studied the germ theory, and *first of all made war upon bacteria*. They established institutes for the study of infectious diseases and for the manufacture of serum and lymph of various kinds. It is now acknowledged by the whole world that to Japan belongs the credit of some of the most valuable contributions to medical science in the field of bacteriology. To her we are indebted for the discovery of the germs of tetanus (lockjaw) and of the plague. Through the investigations of her students the best serum treatment of these diseases, and of diphtheria as well, has been secured. Her students are still busily at work in these fields in the expectation of overcoming dysentery, typhoid, leprosy, tuberculosis, erysipelas, and similar diseases. The results they have already attained place them in the front rank with rival investigators in similar fields in Europe and America.

Still further did these students go in their endeavor to eliminate unnecessary illness among the soldiers at the front. Japan soon realized that the crux of the situation lay in the character of the ration for the troops. She set about to master that problem, and she has gone a long way toward solving it. The ration is suited to climatic conditions, and consists largely of rice, compressed fish, soy, army biscuits, a few salted plums, tea—which necessitates the drinking of large quantities of boiled (sterilized) water—a few ounces of meat when obtainable, and some juicy, succulent pickles.

Striking proof of the value of this scientific study of the ration came long before the outbreak of the war. Dr. Takaki,

as Medical Director of the Imperial Navy, accomplished one of the greatest tasks that ever confronted the medical authorities of any army. To him the navy is indebted for the eradication of that most terribly fatal disease, beri-beri, the former terror of Oriental armies. In the war with Korea forty-five per cent. of the Japanese troops had this disease, and the mortality was appalling. Now it is practically unknown in the navy. This eradication was brought about almost entirely through the scientific study of the navy ration and its reformation. As a result of the change in food, the proportion of meat and vegetables being regulated scientifically, a finer, more robust, red-blooded set of sailors does not exist than those of Japan's naval service to-day, and years have passed since a case of beri-beri has been seen on shipboard.

Having largely mastered the ration problem, the surgeons of the army, hundreds of whom had been trained in the institutes pertaining to the study of preventive medicine, as well as in hospitals where the most improved methods of antiseptics were in use, determined not to interfere with wounds on the battle-fields, unless immediate death threatened, except by the application of first-aid dressings. Probing of wounds, which invites the danger of infection, or operations on the field, do not take place except in cases of great emergency, where they are absolutely necessary for the immediate saving of life. The hospital corps men who accompany the army are trained as nurses in the hospitals and are taught the application of first-aid methods in the most thorough and practical manner. In great emergencies they are sometimes capable of rendering efficient assistance before the arrival of the surgeon.

And so in every department preparatory to the actual making of war, Japan not only took the best ideas of the Western world, but improved on many of them for her own needs. She established her great base hospitals and developed her transport and commissary systems to the highest degree of perfection.

I wish the reader could have gone with me last summer through the great series of hospitals from Tokyo to Sasebo; could have visited the arsenals crowded with supplies; the enormous plants, covering hundreds of acres, given up to the making of munitions of war; the hospital ships; the ship-yards; the transports—all of which they allowed me to visit with the utmost freedom. Japan is the land of the sealed lip so far as the slightest revelation of her plans for making war is concerned, but she is wonderfully frank in disclosing her vast preparations for war.

The war came on. Immediately Japan exhibited a new departure in military strife. She discarded absolutely all the pomp and panoply of war. In the two weeks I spent in Tokyo I

scarcely saw half a dozen men in uniform except in the office of the War Department. There was an absolute absence of the gold-laced, brass-buttoned, ostentation and parade, the swashbuckling, spur-heeled bravado, so much to be seen in certain European capitals even in times of peace.

While I was in Tokyo Japan already had two armies in the field, a third was ready to leave for the front, and a fourth was being mobilized. Immense stores of supplies, food, coal, ammunition, to the amount of thousands upon thousands of tons, were being shipped from the ports of the Inland Sea through the Straits of Shimonoseki to the Gulf of Pechili; great fleets of transports were carrying troops to the Manchurian peninsula and up toward Dalny and Port Arthur; a vast and comprehensive system of manufacture to supply the needs of the soldiers was going on; but it was all done with such perfect organization and intelligent system that one had to search even in the Imperial capital—the very centre of administrative activity—to discover any tangible evidence of the actual existence of war.

Japan made the Medical Department of her army of equal importance with that of the strictly fighting branch, and ranked its officers accordingly. The prevailing idea, as soon as hostilities began, was to prevent disease. The Japanese are the first to recognize the true value of an army medical corps. Care of the sick and wounded consumes but a small part of their time. The solution of the greater problem, preserving the health and fighting value of the army in the field, by *preventing* disease, by careful supervision of the smallest details of subsisting, clothing, and sheltering the units, is their first and most important duty. The capacity of Japan's medical men for detail is something phenomenal; nothing seems too small to escape their vigilance, or too tedious to weary their patience; and everywhere—in the field with scouts, or in the base hospitals at home—the one great prevailing idea is the prevention of disease. They appreciate the sentiment of Milton in "Samson Agonistes," when he says:

"What boots it at one gate to make defence,
And at another to let in the foe?"

The medical officer is omnipresent. You will find him in countless places where in an American or British army he has no place. He is as much in the front as in the rear. He is with the first screen of scouts with his microscope and chemicals, testing and labeling wells so that the army to follow shall drink no contaminated water. When the scouts reach a town, he immediately institutes a thorough examination of its sanitary condition, and if contagion or infection is found, he quarantines and places a guard around the dangerous district. Notices are posted

so that the approaching column is warned, and no soldiers are billeted where danger exists.

Microscopic blood tests are made in all fever cases, and bacteriological experts, fully equipped, form part of the staff of every Divisional Headquarters. The medical officer also accompanies foraging parties, and, with the commissariat officers, samples the food, fruit, and vegetables sold by the natives along the line of march, long before the arrival of the army. If the food is tainted or the fruit overripe, or the water requires boiling, notice is posted to that effect; and such is the respect and discipline of every soldier, from commanding officer to the file in the ranks, that obedience to the order is absolute.

The medical officer is also found in camp, lecturing the men on sanitation and the hundred and one details of personal hygiene—how to cook and to eat, when not to drink or to bathe—even to the paring and cleaning of the finger-nails to prevent danger from bacteria. Long before the outbreak of hostilities he was with the advance agents of the army, testing provisions that were being collected for troops that were to follow; and, as a consequence of all these precautions, he is *not* now found treating thousands of cases of intestinal diseases, and other contagion and fevers that follow improper subsistence and neglected sanitation—diseases that have brought more campaigns to disastrous terminations than the strategies of opposing generals or the bullets of their followers.

It is much too early to submit statistical proof, but from careful observation I venture to predict that the records of the Japanese hospitals will show a large reduction in the percentage of mortality from casualties especially in penetrating wounds of the skull, chest, and abdomen, and injuries to osseous structures—indeed, of every variety of wounds, except perhaps those of the spinal cord, when compared with the statistics of former wars. Up to August 1st, 9,862 cases had been received at the Reserve Hospital at Hiroshima; of these 6,636 were wounded. Of the entire number, up to that time, only 34 had died.

To July 20th, the hospital ship *Hakuai Maru* alone, in her seven trips, brought 2,406 casualties from the front without losing a single case in transit. Up to July 1st, 1,105 wounded—a large proportion of whom were stretcher cases—were received at the hospitals in Tokyo; none died, and all but one presented favorable prognoses. It is upon this and much additional ocular evidence, that cannot be here tabulated, that the prediction is based.

But it is in that far more terrible and pathetic class of losses, the needless sacrifice of four hundred lives to preventable disease for one hundred who die legitimately, that the most astounding reduction will be shown. If the testimony of those conver-

sant with the facts can be accepted, supplemented by my own limited observations, the loss from preventable disease in the first six months of this terrible conflict will be but a fraction of one per cent. This, too, in a country notoriously unsanitary. Compare this with the fearful losses of the British from preventable disease in South Africa—or, worse, with our own losses in the Spanish-American War, where, in a campaign, the actual hostilities of which lasted six weeks, the mortality from bullets and wounds was 268, while that from disease reached the appalling number of 3,862, or about 14 to 1.

Regardless of the outcome of the present terrible war, history will never again furnish a more convincing demonstration of the benefit of a medical, sanitary, and commissary department thoroughly organized, equipped and empowered to overcome the silent foe.

Every death from preventable disease is an insult to the intelligence of the age. When it occurs in an army, where the units are compelled to submit to discipline, it becomes a governmental crime. Witness the French campaign in Madagascar, in 1894, where, of the 15,000 men sent to the front, 29 were killed in action, and over 7,000 died *en route* to and from the scene, from preventable causes.

The Japanese do their killing, but they do it differently. They, too, have their tragedies, but they are legitimate tragedies of grim war. By the methods I have faintly described, their recognition of the importance of preventive medicine and sanitary and commissariat supervision, they have doubled the fighting efficiency of their army, and reduced to a minimum the loss from preventable disease.

Naturally, one asks, Were these results anticipated? As an answer, the statement of a distinguished Japanese officer, when discussing with me the subject of Russia's overwhelming numbers, is pertinent. "Yes," he said, "we are prepared for that. Russia may be able to place two million men in the field. We can furnish five hundred thousand. You know in every war four men die in disease for every one who falls from bullets. That will be the position of Russia in this war. We propose to eliminate disease as a factor. Every man who dies in our army must fall on the field of battle. In this way we shall neutralize the superiority of Russian numbers and stand on a comparatively equal footing."

Compare this with the attitude of Russian officials in the Far East, as stated by Captain Gunderson, Russian commander of the steamship *Unison*, wrecked off the Miaotau Islands last August as she was attempting to run the blockade at Port Arthur. I was on that wreck three days, in company with Captain Boyd,

Tenth United States Cavalry, and Captain Gunderson repeatedly assured us that no one in Russia had any idea that Japan really intended war. As an evidence, he cited a conversation with his brother, who is the Russian Surgeon-General at Vladivostok, and who said: "If Russia expected war, I should be the first to know it, so my hospitals could be in readiness. As it is, I have never been so short of supplies as I am to-day. There will be no war." That night Admiral Togo torpedoed the Russian squadron and practically closed Port Arthur to the outside world.

The perfection of detail with which the Medical Department of the Japanese army is organized commands admiration. The nation is not rich, and the creation of this great establishment and its carefully studied work has been for the definite purpose that is now showing such magnificent results. Japan is the first country in the world to recognize that the greatest enemy in war is not the army of the invader, but a foe far more treacherous and dangerous—preventable disease found lurking in the camp—whose fatalities, as I have said before and will reiterate again and again, have, in every great war of history, numbered from four to twenty times as many victims as all the mines and bullets and shells of the invader. It is against this enemy that Japan has made her hardest fight and attained her most signal victories—victories that have kept her men in superb condition to respond to the call of their leaders and achieve the dashing, brilliant successes that have marked their triumphal progress from the Yalu to the walls of Mukden.

From the standpoint of a humanitarian and a lover of his kind, it was to me a positive delight to visit that great series of hospitals, from Tokyo to Sasebo, with their long wards filled to overflowing with wounded, suffering soldiers, the legitimate victims of war, their faces full of health and hope, despite their fearful wounds in the long, hard campaign of five or six months in Manchuria, their chief desire to know how soon they could rejoin their comrades, and to contrast them, in memory, with the vivid picture of the poor, wan, emaciated, and almost helpless faces that crowded the wards of our hospitals in Cuba and Porto Rico, in Tampa, Chattanooga, and Camp Alger and Montauk Point, in 1898, and in the Philippines in 1899-1900—the innocent, unwounded, and illegitimate victims of another conflict, which, in comparison with the one now waging, would be considered no more than a skirmish among outposts.

If wars are inevitable, and the slaughter of men must go on (and I firmly believe that wars are inevitable, and that most of them are ultimately beneficial), then let our men be killed legitimately, on the field, fighting for the stake at issue, not dropped by the wayside through prevent-

able diseases, as they were in the Spanish-American war—fourteen hundred for every one hundred that died in action. It is for the fourteen hundred poor fellows who are sacrificed, never for the one hundred who fall gallantly fighting, that I offer my prayer.—*The Outlook*.

RECENT NEWS AS TO THE WAR ON TUBERCULOSIS.

BY E. HERBERT ADAMS, M.D., C.M., TORONTO.

Illinois.—The Dixon Medical Association, at its regular meeting, considered "The Early Diagnosis of Tuberculosis." The meeting was open to the public. . . . Peoria Medical Society has taken steps to require the registration of every case of consumption, and disinfection of rooms formerly occupied by consumptives. . . . There is a good prospect of the passage of Mr. Glackin's bill, appropriating \$200,000 for the erection of a sanitarium for consumptives in Illinois. A large number of prominent citizens have endorsed the bill.

Indiana.—Cass County Medical Society held its first annual session and discussed tuberculosis. Mayor Shattuck, of Brazil, nominated Drs. Orr, Williams and Hurt to attend the American Anti-Tuberculosis League at Atlanta, Ga., in April. . . . Physicians from all over the State waited on the general assembly with a view of securing state aid in combating tuberculosis. . . . The State Board of Health bulletin shows a financial loss to the State of \$800,000 a month by consumption. . . . Tiptecanoe Medical Society has petitioned the State to assist them in dealing with local tuberculosis. . . . Physicians of Eastern Indiana are planning a crusade against tuberculosis in the eastern part of the State.

Iowa.—At the recent session of the Sioux Valley Medical Association, Dr. Bracken, Secretary of the Minneapolis Board of Health, lectured on "The Control of Tuberculosis."

Michigan.—At a meeting of Wayne County Medical Society, Dr. J. Vernon White combated the idea that tuberculosis is benefited by change of climate. . . . Dr. Branch, of White Cloud, has asked for a State appropriation of \$20,000 toward the sanitarium for consumptives to be built there. The legislature is discussing the establishment of a State institution for tuberculosis. . . . A bill will be introduced into the State legislature providing for a State sanitarium for consumptives. . . . A committee of forty citizens of Battle Creek have in-

augurated a campaign to make that city the healthiest in the world.

New York.—Supt. Prior presented the first report of the State hospital for the treatment of incipient tuberculosis, which was established at Raybrooke in the Adirondacks by an Act of the legislature. The report was highly satisfactory. . . . Albany County Medical Society have recommended to the Board of Supervisors the establishment of an institution for tuberculosis patients. . . . The New York State Hospital for treatment of incipient pulmonary tuberculosis, at Raybrooke, has issued its first and most encouraging report. . . . *The Medical Record* of March has an editorial on the "Home and the Tuberculosis Problem."

Ohio.—Dr. C. O. Probst, Secretary of State Board of Health, read a lecture on "Tuberculosis" to the Delaware Medical Society. . . . Ohio Tuberculosis Commission is considering a site for the State sanitarium. . . . Freemont is to have a course of public free lectures on tuberculosis. Dr. Lowman, of Cleveland, Dr. Probst, of Columbus, and Dr. Chapman, of Toledo, are among those booked to speak. . . . Cleveland is preparing a city farm for the treatment of tuberculosis and small-pox. . . . The Cleveland Tuberculosis League has organized and adopted a constitution and by-laws.

Kentucky.—Louisville is planning the erection of a hospital for consumptives.

Missouri.—The legislature will appropriate money for a consumptive hospital at the Missouri penitentiary.

Pennsylvania.—A bill has been introduced in the legislature for a \$500,000 appropriation for a hospital for consumptives at Greensburg. . . . Jersey City has barred tuberculous teachers from the public schools. . . . The Reading Tuberculosis Dispensary, Dr. William D. Smith, President, is rapidly getting under way. Four patients are now being treated.

Wisconsin.—A bill is before the Wisconsin legislature which provides for the treatment of pulmonary tuberculosis. . . . A bill is before the legislature for the erection and equipment of a State institution for tuberculosis. . . . Dr. H. R. Russell, State Bacteriologist, conducted seventy-five members of the legislature to the university farm, where they witnessed the slaughtering of cattle which had yielded to the tuberculosis test. . . . The Senate has appropriated \$10,000 for the erection of a tuberculosis sanitarium in Lincoln County, on land donated by the late W. H. Bradley. Dr. Wm. J. Roberts, of Janesville, is Secretary of the movement.

California.—Los Angeles Chamber of Commerce has recommended a State institution for the incurable cases of tuberculosis.

Colorado.—The new Jewish Consumptives' Relief Society, of Denver, has just held its first annual meeting, and reports a good financial condition. . . . The Swedish Consumptives' Association have incorporated in Denver, and purpose spending \$500,000 on one of the finest sanitariums in the West.

District of Columbia.—The committee on the prevention of consumption have opened a free dispensary, which is available every day from 2.30 to 3.30. Examination and test of sputum will be made free of charge.

Chicago.—Union Cigarmakers have voted "no" on the question of maintaining a farm in Colorado for the treatment of tubercular members. . . . The City Council is preparing to amend the ordinance against spitting on the sidewalks with a view of making it more practical.

Maryland.—Johns Hopkins Hospital has opened a dispensary for the treatment of tuberculous patients in Baltimore. The dispensary was built through the generosity of Mr. Henry Phipps, of Pittsburg, who gave \$20,000 for its erection.

Vermont.—The State Tuberculosis Commission held a public meeting at Burlington, February 10th, and at Essex Junction, February 13th.

New Mexico.—A movement is on foot among the labor unions of the country to organize a large tuberculosis camp, or colony, in New Mexico, where members of the union and their families may receive suitable climatic and medical treatment at little or no personal cost. The Temple of Fraternity, a \$90,000 building erected for the St. Louis Exposition by the World's Fair Fraternal Sanatorium, will be wrecked, transported to the site chosen, and then rebuilt, to serve as the administrative building for the colony. The heads of the cigarmakers' unions are also endeavoring to establish sanatoria for consumptives in various appropriate sections of the country.

Vienna Letter.—In Professor Schrotter's clinic, in Vienna, the treatment of laryngeal tuberculosis by means of direct sunlight is being made the subject of extensive trial.

Austria.—Austrian physicians who may desire to obtain special instruction in practically combating tuberculosis, may receive free board and lodging, together with laboratory facilities, at the Alland sanitarium, a small sum having been set aside by the authorities for the purpose of encouraging such work.

ABSTRACTS.

Joint Affections.—C. R. Grandy, Norfolk, Va. (*Journal A. M. A.*, May 6), comments on the confusion in the popular mind as to what constitutes rheumatism, and enumerates and describes the various disorders often called by this name. He advises against the indiscriminate treatment of joint affections with salicylates or the prescription of a lithemic diet. He advises differentiating the various joint affections. The results of the popular routine treatment have been notoriously bad, as might be expected from the small percentage of cases to which it was suited.

Intratracheal Injections.—J. W. Gleitsmann gives a historical *résumé* of the development of this method of medication which he considers deserves more attention than has been accorded it. Judgment in the selection of cases is necessary, however, and though the method is useful in alleviating the dry cough in the beginning stage of pulmonary tuberculosis, and may at a later stage favorably modify the putrid secretions in this disease, a cure is not to be expected from the procedure *per se*. In bronchiectasis the injections are almost specific, and many, but not all, cases of asthma can be relieved in this way. Intratracheal injections are not to be recommended in acute inflammatory conditions, but they are most efficient in chronic tracheitis and bronchitis, while tracheal syphilis has been cured and fetid pulmonary gangrene has been favorably influenced. The vehicle should be a bland purified oil to which may be added menthol in the proportion of one to fifteen per cent., gnaïacol and creosote carbonate from one to two per cent., etc. The laryngeal mirror is essential to the proper introduction of the canula, which is preferably made of hard rubber and is used in connection with the Hartmann ear syringe, holding one ounce.—*Medical Record*, March 25th, 1905.

Obstruction of Retinal Arteries.—Allen Greenwood, Boston (*Journal A. M. A.*, March 11th), considers at length the three principal causes of obstruction of the retinal arteries, viz., arterial disease, embolism and spasm. He thinks that primary thrombosis is rare, though thrombosis is frequently a complication of the above conditions. The most important arterial disease is arteriosclerosis, and he points out the earliest danger signals of this condition. They are a slight increase of arterial reflex, slight irregularities in the size of the arteries, slight congestion of the disc, and feathery outline. Where the artery crosses above a vein the latter may be compressed. A little feathery exudate

is often seen beside the arteries which should not be mistaken for the opaque nerve fibres often observed. With thickening of the central artery venous pulsation may sometimes be observed ophthalmoscopically; one or all of these conditions may be present. In more advanced cases the light reflex is increased, the arteries become beaded, retinal lesions appear and, finally, we have the full picture of albuminuric retinitis. The early stages of arterial degeneration require the careful inspection of the upright image for their detection. Spasm, the author believes, most frequently occurs in the early stages of arteriosclerosis, and should be looked on as a warning of future obliterating endarteritis. The treatment of arterial sclerosis is mainly a well regulated life and avoidance of nerve strain and excesses and keeping elimination and digestion unimpaired. Greenwood has been in the habit of advising long-continued use of small doses of iodid of potash. The treatment of embolism is rarely prompt enough to save the function of the retina, but Greenwood advises the early use of vasodilator drugs and deep massage to carry the embolus, if possible, into the smaller branches and to reduce the field defect. For spasm the treatment for arteriosclerosis should be carefully followed. Nitrite of amyl might be used to cut short an attack.

Psychological Aids, or the Practical Use of Well-known Laws of the Mind.—E. C. Savidge advocates paying more attention to the psychical factors concerned in healing disease, among which the personality of the physician has an important place, so that one man's digitalis and calomel may be better than another's. Enhancing the alertness of the nervous system increases vitality, and in change we have an almost weighable vitality to add to our patients. Change is the basis of consciousness, and consciousness increases vitality, but monotony, after a certain point, lessens vitality. The great laws of the nervous system may be said to be (*a*) the law of novelty, (*b*) the law of monotony, (*c*) the law of peripheral change, (*d*) the law of central stability. Surface impressions release tension on deep centres. They should be changed as often as reasonable for the designed purpose of getting the vitality hidden therein. Freshness, vividness, youth, effective longevity, lie here. A man is old the moment he ceases to do new things, to diminish his mobility. The study of the vital conditions tending to the prolongation of the life of the individual, the author terms synthetical medicine, and in this the laws of the mind are most important. The following is given as an example of the application of these principles to a case of supreme nerve prostration in which drugs fail. 1. Separate the patient from the scene of his troubles as far as possible—even to the extent of new temporary sleeping and business quarters.

2. Restrict all discussion of troubles to the morning hours. Absolutely forbid reference thereto at night. 3. Occupy him with his periphery, by ordering Turkish bath, massage, shave, hair-cut, manicure, and have him arrayed in his best garb, etc. 4. Interpose some one, disinterested in his sore thought, between him and his conjugal or business partner. 5. Seek gentle exercise for his atrophied auxiliary faculties. All the play impulses, such as sports and games, are of this class. 6. Apply the power in the law of central stability.—*Medical Record*, March 18th, 1905.

Gonorrhea as a Cause of Death.—Joseph Taber Johnson Washington, D.C. (*Journal A. M. A.*, March 11th), reviews the opinions of authorities as to the effects of gonorrhea in producing female sterility and disease, and states his belief that if the mortality from this cause could be ascertained it would be found to equal that from either typhoid fever, pneumonia or tuberculosis, and that possibly it might be found to exceed the mortality from all three diseases. He thinks that gonorrhea is the cause of at least 30 per cent. of the deaths among prostitutes, and that through its later effects on the generative organs it may be the cause of death in a very large number of virtuous married women.

Acne and Its Treatment.—G. T. Jackson says that acne is even commoner than eczema, and that while it is true that the disease is often stubborn, the majority of cases can be greatly benefited in a short time, and very many of them cured promptly. The indications for treatment are as follows: (1) Improve the condition of the skin, so that it will no longer be a suitable culture ground for the bacillus; (2) empty the follicles of the skin of the colonies of bacilli; (3) keep the skin constantly aseptic, so that any bacilli that escape on it will be killed, and no new infection of the skin will be possible. The first indication is met by attention to the patient's general health by means of baths, diet, exercise, attention to hygiene, and, lastly, drugs. The follicles are emptied by the use of the curette, the acne lancet, and the comedo expressor. The best local application is sulphur, preferably in the form of the old *Lotio Alba*, the formula for which is: Zinc sulphate and potassium sulphuret, of each dr. 1 to 2; rose water, q. s. ad. oz. 4. This is to be shaken up before using. Resorcin is also useful, as well as sulphur soap. The use of the X-ray should be limited to intractable cases, and requires great caution to prevent doing harm.—*Medical Record*, March 18th, 1905.

Report of a Case of Vaginal Cesarean Section with Recovery.—S. Strauss outlines the technic of vaginal Cesarean section, and describes a case in which he resorted to the procedure for dystocia

due to cicatricial stenosis of the cervix. The author advocates vaginal Cesarean section in cases such as those of eclampsia and placenta previa in which rapid delivery is necessary, and gives the following general indications: (1) Abnormalities of the cervix uteri, as carcinoma, myoma, rigidity, and stenosis; (2) conditions in which the mother is *in extremis*; (3) conditions in which the mother has disease serious to life, as lung, heart, or kidney affections; (4) accidental hemorrhage with closed cervix. The third indication is operative only when the cervix is closed and not dilatable, and it does not appear wise to have the patient suffer from a long labor when there are severe heart or kidney lesions.—*Medical Record*, March 11th, 1905.

Preliminary Report on the Treatment of Chronic Dysentery, by Irrigation of the Colon Through the Vermiform Appendix or an Opening Into the Cecum.—W. H. Arthur has carried out the treatment of dysentery by this plan in six cases, and is very favorably impressed with the results, although he considers the number too small to enable definite conclusions to be drawn. The advantages of this method of irrigation over the deep rectal injections are: 1. The irrigating fluid is delivered first at the point shown by experience at the post-mortem table to be the location of the most extensive lesions, and is carried from there by the natural peristaltic movement of the colon to the outlet. Rectal irrigations, to reach even the transverse colon, must overcome this natural tendency of the bowel to drive out any foreign substance. 2. It is entirely painless, and very much easier for the nurse to administer. Indeed, the patient can soon be taught to do the irrigating himself. 3. It is possible to keep it up much longer, for rectal irrigations soon become so distressing that they must be discontinued for long periods.—*Medical Record*, March 25th, 1905.

The Present Status of Blood Examination in Surgical Diagnosis.—F. Sondern states that the differential leucocyte count offers a better guide to the status of an inflammatory process than the absolute leucocytosis. Three distinct blood pictures may occur in inflammatory lesions. First, a relative percentage of polynuclear cells below 70, with an inflammatory leucocytosis of any degree, excludes the presence of pus at the time the blood examination is made, and usually indicates good body resistance toward infection. Second, an increased relative percentage of polynuclear cells, with little or no inflammatory leucocytosis, is still an absolute indication of the inflammatory process and the percentage is a direct guide to the severity of the infection. Third, an increased relative percentage of polynuclear cells with a decided inflammatory leucocytosis. Here the percentage of

polynuclear cells is an accurate guide to the status of the inflammatory lesion. Iodophilia is less reliable as a test of the presence of suppuration than is the differential count.—*Medical Record*, March 25th, 1905.

A Case of Cicatricial Stricture of the Esophagus.—A. B. Atherton describes a case of obstinate cicatricial stricture of the lower end of the esophagus, which when first seen admitted only an olivary French bougie two millimetres in diameter. By gradual dilatation it became possible to introduce an instrument of twice this size, but after this no further stretching could be effected. The stomach was, therefore, opened and the stricture softened by the use of the string and bougie procedure of Abbe, after which gradual dilatation became possible, so that a short red rubber bougie, one centimetre in diameter, could be permanently worn. The upper end of the bougie lay at the junction of the pharynx and esophagus and was secured by a silk thread fastened to a tooth or to one ear. When last heard from, a year after the operation, the patient was still obliged to continue the daily use of the bougie, otherwise the stricture soon contracted.—*Medical Record*, March 11th, 1905.

A Warning and a Protection for X-Ray Workers.—A. Holding rehearses the dangers of dermatitis, malignant disease, azoospermia, etc., that confront the X-ray worker, and points out that it is possible that the second decade of experience with Roentgen's discovery may reveal activities as yet unsuspected. The greatest care should be observed by radiographers to avoid unnecessary exposure, and the author describes and illustrates a suitable screen, three feet by six in size, covered with double layers of lead plates, which is intended to cut off all rays from the operator who manipulates the switch-board from its shelter and observes patient and tube by means of a pivoted mirror affixed to the side of the frame work.—*Medical Record*, March 25th, 1905.

Eulexine in Diabetes.—I believe diabetes mellitus to be largely a disturbance of the liver and intestinal tract, and that with a liberal use of Eulexine for the regulation of those symptoms and adjuvant remedies for other symptoms as they arise, that every diabetic patient might enjoy a reasonable expectancy of life. I have under treatment a man thirty-four years of age. His normal weight was about 190 pounds. After one year's siege of diabetes, he was reduced to 136 pounds. The main troubles reported were chronic constipation and extraordinary excess of urine, the average daily excretion of urine being about one gallon, which contained 8 per cent. of sugar by fermentation test. Thirst so excessive that it required an unusually large

quantity of water to partially allay it. I prescribed Eulexine in teaspoonful doses every three hours, and one-sixtieth of a grain strychnine arsenate three times a day. The colon was flushed daily for about one week, and thereafter the bowels gave the patient no further trouble. After two weeks' treatment I decreased the dose of Eulexine to one teaspoonful three times a day, after meals and at bed time. Very little attention was paid to the diet. Within one month the excretion of sugar was reduced to 5 per cent. After three months' continuous treatment the dose of Eulexine was reduced to one teaspoonful, three times daily. At this writing, six months after beginning the treatment, the analysis of the urine shows only a trace of sugar and the patient weighs 172 pounds, and is apparently on the road to complete recovery.—R. J. Ludlow, M.D.

Bile-Tract Adhesions.—R. T. Morris says that the new subject of bile-tract adhesions is destined to awaken the medical profession as we were awakened by the subject of appendicitis. The condition is very common and gives rise to symptoms of local tenderness, pain and colic that are often mistaken for gall-stone disease. The treatment is operative separation of the web of adhesions, and prevention of their recurrence by the application of either chromicized Cargile membrane or of aristol to the roughened peritoneal surfaces. Removal of the gall-bladder is to be recommended. The operation is usually almost startling in its success, but care in diagnosis is necessary to avoid needless intervention. The diagnosis and treatment of these cases opens up a new vista, and biliary adhesions stand in abundance midway between the thoroughly understood adhesions of the pelvis and those of the cecal region.—*Medical Record*, March 25th, 1905.

Food Preservatives.—V. C. Vaughan, Ann Arbor, Mich (*Journal A. M. A.*, March 11th), states that a true food preservative must keep the substance to which it is added in a wholesome condition so that it can be consumed without impairment of health. It must be a real preservative, keeping the food in a wholesome condition and not merely preserving the appearance of freshness while permitting bacterial changes to continue. It must not materially impair any of the digestive processes, even in the largest quantities used, and should not be a cell poison, or if such to any extent, it must be added to foods only by persons qualified by special training and officially authorized. Foods containing these substances must be plainly labelled and the kind and amount of the preservative used must be made known, not only to the buyer, but to each consumer. A cell poison is defined as an agent that destroys or impairs cell functions by its chemical action.

Aseptic Operating.—H. T. Byford, Chicago, (*Journal A. M. A.* March 11th), objects to rubber gloves and impervious covering of the hands on the ground that they produce sweating, and that a scratch or puncture would liberate the accumulation of germ-laden perspiration. He advises soaking the hands thoroughly to soften the cuticle and to loosen the dirt between the epithelial scales, and for this purpose he prefers water drawn in a basin and frequently changed to running water. After soaking the hands thoroughly in a basin and scrubbing them with green soap, he advises a scrubbing with diluted acetic, citric or oxalic acid. This, in turn, is followed by soaking in 90 per cent. alcohol and then in a 1-100 solution of bichlorid of mercury. In protracted operations, he advises dipping the hands in the mercuric solution every ten or fifteen minutes to insure asepsis. He does not believe in mixing the solutions of alcohol, green soap, etc., but prefers to keep them separate, and he objects also to sterilized sleeves. Of equal importance is the sterilization of the field of operation. It is easy to sterilize the abdomen, but it is more difficult in case of the groin or genitalia. The shaving should be carefully done to avoid abrasions, and the parts scrubbed, not only with soap, but with alcohol and mercuric chlorid, and minor operations should receive the same attention as the major. The best after-dressing is sterilized gauze shreds over the sutures and a thick layer of sterilized gauze over these. Inguinal wounds should be washed off after six days and then covered with dry sterile gauze, to be removed daily or otherwise, as occasion requires. Dry dressings over peritoneal sutures should be changed every four hours or oftener if they become saturated.

The Treatment of Epidemic Cerebrospinal Meningitis by Diphtheria Antitoxin.—E. Waitzfelder reports the results following the treatment of seventeen cases of epidemic cerebrospinal meningitis by the injection of large doses of diphtheria antitoxin according to the suggestion of A. J. Wolf. Five of the patients recovered completely; three died, of whom two were adults, and nine cases are still under treatment. Of these, five show such marked improvement as to indicate probable recovery, four being convalescent. Of the remaining four cases, all are in a serious condition and prognosis is impossible at the present time. Most of the cases were severe in their onset, with well marked evidence of profound constitutional infection, as is to be expected in the early periods of an epidemic. The doses of antitoxin given were 6,000 units to children less than five years of age; 8,000 units to those between five and twelve, and 10,000 units to adults. This amount was injected under the scapulae on alternate days. In some severe cases it was given daily. Usually the injection was followed by a fall of temperature and pulse, and great im-

provement in the general symptoms. No bad effects developed as the result of the administration of the antitoxin. Should the results in these cases prove to be consistently repeated in others, the author believes that to Dr. Wolf belongs the credit of having discovered the remedy for one of the most fatal diseases, and of having evolved a plan of treatment not second in its effects to the antitoxin treatment of diphtheria.—*Medical Record*, March 11th, 1905.

Radical Operation for the Removal of a Bullet Weighing 70 Grains, Embedded in the Internal Wall of the Middle Ear, with Decided Improvement in the Subjective Symptoms.—M. D. Ledermann describes a case which illustrates the remarkable resisting powers of the negro skull. The patient was a colored woman, who presented herself with the statement that three years before she had been shot in the left side of the head with a 32-calibre revolver, held six inches from the skull. The bullet entered immediately above the tragus. Following the injury she was unconscious for three or four weeks, and since that time she suffered from deafness, vertigo and facial palsy. Examination after removal of a meatal polyp, revealed the bullet so firmly embedded in the internal wall of the middle ear that it could not be stirred. On performing the radical mastoid operation, it was found impossible to lift the bullet from its bed and it had to be chiselled away in shavings. The patient made a good recovery, attended by great improvement in the vertigo, deafness and facial palsy.—*Medical Record*, March 11th, 1905.

Voluntary Iris.—J. W. Sherer, Kansas City, Mo. (*Journal A. M. A.*, May 6), reports a case of this rather rare condition. It was first noticed at the age of 9 when the child developed the power of voluntary rotating the eyeballs independently. After that it became a matter of common observation that the iris could be dilated at will, almost to the disappearing point. At puberty the right iris was for awhile twice the size of the other, but later they became equal again. The power to simulate convergent strabismus is possessed by the woman to a remarkable degree. Vigorous exercise of the iris movements seem to cause slight aching of the eyes, but no other inconvenient symptoms are reported.

X-ray Treatment of Cancer.—The microscopic changes in the tissue, says E. G. Williams, of Richmond, Va., (*Journal A. M. A.*, May 6), should be our guide as to the therapeutic possibilities in the X-ray treatment of malignant growths. It is evident, he states, that the elements of the tissues are affected according to their vitality. Dead organic matter is unaffected, and the more active the growth the greater the effect. Next to this is the accessibility of the tissues to the rays. Hence the better results with superficial or skin cancers. That moderately deep tissues can be affected is

shown by experience, and the way to reach them without producing necrosis of overlying tissues is to lengthen the distance of the tube and the time of exposure. For deep growths, radical surgical measures should be recommended, as the patient should be given the benefit of the probability rather than the possibility of good results. In such cases, however, operation might be rationally followed by X-ray treatment to destroy what may remain of the malignant growth. Inoperable cases should be treated by the X-ray because remarkable results have been obtained and the most distressing symptom of pain relieved.

The Fear of Death.—J. Leonard Corning, New York (*Journal A. M. A.*, May 6), discusses the morbid exaggeration of the fear of death, which he considers due to a neuropathic basis inherited or acquired. In animals the fear of death is dependent on its imminence; in man it is sometimes a permanent obsession, but it is even then usually absent in the actual process of dying, the dulling of consciousness at that time and other dominating physical conditions accounting for this fact. He reports a case illustrating what he considers the essential psychology of the morbid dread of death, in this case even exciting suicidal impulses—death to escape death. In treating this condition he would suggest the thought that sleep is a sort of death, and unconsciousness whether lasting or not, a boon. His treatment was to prevent sleep until it was sought imperatively, and was based on the theory of proving experimentally that the temporary unconsciousness of sleep is the remedy for curable shortcomings and convincing the reason that the more lasting unconsciousness of death is only the supreme antidote of the irremediable breakdown of the organism, and therefore supremely benevolent in its essential nature.

Treatment of Gonorrheal Arthritis by Hyperemia.—Johannes von Tiling, Poughkeepsie, N. Y. (*Journal A. M. A.*, April 29), has secured excellent results from Bier's method of damming back the circulation with elastic bands in several painful cases of gonorrheal arthritis. He advises the use of a thin, pliant rubber bandage, applied so as not to cause discomfort, but sufficient to produce very perceptible hyperemia. Blueness and coldness of the limb, white or vermilion spots and pain or paresthesia indicate that the bandage is too tight and should be loosened. Properly applied, the most marked first effect is relief of pain, but this is not all; damming, he claims, has a bactericidal effect, and dissolves away the adhesions which are completely removed by massage after the removal of the bandage. At first the bandaging should be of short duration, a few hours at a time, but later it should be increased until it reaches ten hours a day and ten hours at night. After removal of the bandage, massage lightly, then have the patient stand and move the joints. He claims that this method gives better results in most cases of gonorrheal arthritis tending to stiffness of the joints than any other.

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J. J. CASSIDY, M.D.,

EDITOR,

43 BLOOR STREET EAST, TORONTO.

W. A. YOUNG, M.D., L.R.C.P. LOND.,

MANAGING EDITOR,

145 COLLEGE STREET, TORONTO.

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NO. 6.

Editorials.

DIVERGENT OPINIONS ON MATTERS RELATING TO SMALLPOX INFECTION.

FROM the reports presented by Dr. Bell, Inspector of the Ontario Board of Health, at the second quarterly meeting of that board, it appears that many people living in the northern section of this province are in no great fear of smallpox. In fact, some of them

are more afraid of the methods adopted to prevent its spread than they are of the disease itself. For instance, in one municipality, the placard placed by the Board of Health on the door of an infected house was removed, on the plea that it might prevent people coming to the town. In another village, a man who kept a bakery sickened with smallpox; but continued to attend to his shop until compelled to take to bed. His wife nursed him in a room over the shop, and also waited on customers in the shop. No placard was put up. On visiting the patient, Dr. Bell found a fully developed case of smallpox. Another odd circumstance was recorded: A schoolmistress and a number of her pupils caught the infection, yet no isolation was practised. In another instance the inspector visited a man reported to have smallpox, and learned that the patient was working out of doors. The inspector interviewed the patient and, on asking him if he was not ill, was informed that "he had been ill, but was now better." At the time of the interview, this patient's face was covered with scabs from which pus was exuding. There may be something in the make-up of such people, causing them to scorn any ailment which does not threaten them with death. Besides, a physician accustomed to old-fashioned smallpox would say that these patients were not very ill. The disease they had was, doubtless, smallpox, but it was not dangerous to life. In fact, Dr. Bell admitted that the smallpox which prevailed in Northern Ontario was not dangerous to life, and that, during the past winter, he had witnessed but one severe case of the disease.

The anomaly of the matter is: smallpox, one of the most dreaded diseases with which preventive medicine has to deal, is, and for several years back has been, peculiarly mild in Canada. Deaths are few, the mortality rarely exceeding over half of one per cent. of the cases. The Sanitary Inspector is, however, called upon to prevent its spread, and in doing so, he puts in motion the machinery required by law for the most formidable type of the disease. People who have been caught in the meshes of the epidemic, either as patients or suspects, endeavor for various reasons to conceal their misfortunes; municipalities with a few cases try to hush up the bad news lest the town should get an evil name. An impartial bystander would probably say, that the people living in the districts where the epidemic prevails are indifferent to what is one of the most disgusting of diseases. On the other hand, in view of its small mortality and the great private and public expense

caused by it, he might pronounce the hygienists too zealous, too much after the type of the man who used a trip-hammer to kill a fly. Another smallpox question, upon which divergent opinions prevail between physicians themselves, is the relation of smallpox hospitals to the surrounding community. Some physicians have asserted that the isolated position usually chosen for smallpox hospitals is uncalled for, and that this disease is not carried to any distance by the wind. A totally different opinion is expressed by the author of Parke's *Practical Hygiene*, published in 1902, who writes: "The exceptional incidence of smallpox, in the immediate neighborhood of some of the London smallpox hospitals in which were formerly treated during epidemic periods large numbers of cases, can admit of but one explanation, viz., that when a sufficient number of cases in the acute stages are collected together in one building on a small area of ground, the hospital becomes a centre of infection to the surrounding neighborhood."

An English Local Government Board circular, on "The Provision of Isolation Hospital Accommodation by Local Authorities," has, with a view to lessening the risks of infection from smallpox hospitals, laid down the rule that a local authority should not contemplate the erection of a smallpox hospital, first, on any site where it would have within a quarter of a mile of it as a centre either a hospital, whether for infectious diseases or not, or a work-house, or any similar establishment, or a population of 150 to 200 persons; and secondly, on any site where it would have within half a mile of it, as a centre, a population of 500 to 600 persons, whether in one or more institutions, or in dwelling-houses. Cases in which there is any considerable collection of inhabitants just beyond the half-mile zone should, says the circular, "always call for especial consideration."

This circular is, of course, founded on the theory of the aerial conversion of smallpox to a distance, in support of which many convincing facts can be adduced. Per contra, it is contended, that the incomings and outgoings of the staff, the calls of tradesmen and friends of the patients, and the bringing of the patients to the hospitals are all dangers which of necessity become intensified as the centre is approached, and may in themselves account for the circumstance that smallpox infection prevails more abundantly in the vicinity of a smallpox hospital.

We have not seen any Canadian evidence to substantiate the view that smallpox is conveyed considerable distances by the

wind, and that the infection may be thus communicated to people living in the vicinity of such an hospital. If such evidence had been available twenty-three years ago it is likely that it would have influenced the wording of Section 28 of the Ontario Public Health Act, which says, "No land or building to be used for the purposes of this Act (infectious disease hospital) shall be nearer than 150 yards to an inhabited dwelling." Neither does it appear that any evidence supporting the aerial conversion theory has been brought forward in Canada since the Ontario Board of Health was established in 1882. In view, however, of the respectable English authorities quoted it would be presumptuous to say that the view favoring the aerial conversion theory of smallpox from smallpox hospitals is extreme. It is better to preserve an impartial attitude, and judge this question as the facts arise. In the meantime there are very divergent opinions among physicians themselves as to the danger of smallpox infection to people living in the neighborhood of smallpox hospitals.

J. J. C.

THE MEDICAL ASPECT OF MALT EXTRACT.

MALT is the product yielded when barley has been allowed to germinate, and the germination has been stopped at a certain point by subjecting the grain to heat in a kiln. As a result of the process, a peculiar active nitrogenous principle called diastase is developed, which has the power of effecting the conversion of starch into dextrin and sugar, and through this, malt differs from barley in a portion of the starch being represented by sugar. Malt infused in hot water yields sweet-wort, which is rich in saccharine matter. This is used for making beer. Malt extract is obtained by the evaporation of sweet-wort, preferably in a vacuum and at a low temperature. It should be light in color, having a characteristic taste and an odor like that of new bread. It does not contain alcohol, but should contain diastase. The principal food element in malt extract is sugar, one brand showing on analysis 68.60 per cent. of sugar; a second brand 58.77 per cent.; a third 51.39 per cent. There can be no gainsaying the fact that sugar is an important food element; but it is cheap, very much cheaper than malt extract. Because starch is digested in the presence of diastase, a considerable food value is supposed to be due to the presence of diastase in malt extract. Analytical chemists have devoted a good deal of attention to an estimate of the percentage of diastase in

malt extract, its presence in a sample being considered an evidence of food value and genuineness; its absence an indication of poverty in food value and also of fraudulent manufacture.

If it were true, that the presence of diastase in malt extract measured its food value; if, in fact, the presence of diastase in malt extract were essential to its recognized food value, then the sale of a malt extract devoid of diastase would deprive the consumer of so much food and would constitute a fraud.

Now chemists can easily prove that diastase, prepared from malt that has not been heated above 135° F, is capable in neutral or very slightly acid or alkaline solutions of digesting appreciable quantities of starch. The operation is most successful in the retort. It is doubtful, however, if the action of diastase on starch will take place in the human stomach to any appreciable extent, and still more doubtful, if, in the treatment of what has been called starchy indigestion—amylaceous dyspepsia—such malt compounds are of any service. Butler says, (*Text-book of Materia Medica*, 1902), that “the clinical evidence adduced to prove the efficiency of such malt compounds should be taken with caution.” He also says “Of the many malt preparations on the market, the best that critical science can say is that they are excessively high-priced foods.” In other words, the consumer pays a high price for evaporated sweet-wort, to which diastase, even if the presence of that enzyme is demonstrated, does not add an additional food value. Thick malt extract of a syrupy consistence is not now in great demand. It is difficult to take, owing to its tenacious and adhesive qualities. On the other hand, thin malt extracts have had a large sale and are still in considerable demand as the pharmacists say. The brewers have been quick to discover the popular taste in malt extracts, and cater to it by supplying an article which is malt extract in name, but in reality is beer. Reporting to the Ontario Board of Health on this subject, Geo. G. Nasmith, M.A., Ph.D., says, “Nine specimens of malt extract manufactured in Ontario, and eight of them by brewers, were found to be absolutely without diastatic action, although, without exception, all were claimed to be active. None of these caused the disappearance of the starch after fifteen hours, proving that not even traces of diastase were present. All were dark brown in color, indicating that they had been sterilized by heat, the diastase of necessity being killed in the process. All contained alcohol, were of thin consistency, and contained only from four to sixteen per cent. of solids.”

In fact, while these preparations are nominally malt extracts, they are, to all intents and purposes, ordinary beer. Most of this is not news to our readers. What are we going to do about it? There is something to be said in favor of the thick malt extracts. In many cases, they have been found quite beneficial in states of chronic debility, dyspepsia, due to organic disease or infirmity, or to mere nervous exhaustion, but seldom more, and often less so, than good malt liquors into the composition of which hops enter. The semi-liquid preparation, which is the only true extract of malt, is very difficult to take, owing to its tenacious and adhesive qualities. It is generally prescribed in teaspoonful doses mixed with soup, wine, beer, or milk. On the contrary, the thin malt extract is easy to take and is very palatable. Our friends the brewers appear to have solved a pharmaceutical difficulty, by giving us beer and labelling it malt extract.

J. J. C.

EDITORIAL NOTES.

Disinfection of Houses by Formalin.—At the Havana meeting of the American Public Health Association, January, 1905, Professor L. C. Robinson, of Brunswick, Maine, read the report of the Committee on Disinfectants. The methods of disinfecting rooms practised in the German Empire were described at length. All cities of the German Empire, excepting Berlin, have adopted the method of Flügge, of Breslau, that is to say, the fumigation of rooms with formalin combined with the disinfection of bedding with steam. Weak solutions of formalin, which do not lose strength as soon as the stronger ones are preferred. Ordinarily $1\frac{1}{2}$ litres of an 8 per cent. solution of formalin are evaporated in a space of 100 cubic metres, the room being closed and all cracks or openings plugged with wadding and mastic. Everything in the room is arranged so that the gas may easily reach all the surfaces. The room remains closed for from $3\frac{1}{2}$ to 7 hours, after which ammonia is introduced to neutralize the formalin. The bed and bed clothes are then removed to the public station to be disinfected by steam. At Berlin this method is followed in houses of the better class: but among the generality all washable articles are washed in a 3 per cent. solution of carbolic acid, and beds, bedding, curtains, carpets, etc. are sent to the public station to be disinfected by steam. In some cases the vaporization of formalin is added to

this disinfection. Fumigation by means of sulphur is no longer used at Berlin or the other German cities. Professor Robinson recommended Flügge's method of disinfection, which is the one most generally employed in the United States. He also mentioned a point in formalin disinfection, which has not been sufficiently noted, *viz.*, that the good effect of a formalin fumigation does not end when the room is occupied again. The greater part of the surfaces exposed to its action, and especially clothing, paper and varnish absorb this gas and remain antiseptic during a considerable time. The presence of formalin has been noticed for weeks after disinfection had taken place. Singular to relate also, disinfection done with a weak solution of formalin (8 per cent.) and continued for a long time has a more lasting influence than if a strong solution of formalin is used for a short period. He also recommended that the floors of school rooms should be washed with weak solutions of formalin, so weak, indeed, as not to cause any odor. When this method of washing the floors of school rooms is employed he has observed that colds and inflammatory affections of the lungs prevail less frequently among the scholars attending such schools.

Diagnostic Points between Spermatorrhea and Seminal Pollutions.—In the *Daily Medical*, April 7th, 1905, Dr. F. R. Sturgis, New York, establishes the following diagnostic points between spermatorrhea and seminal pollutions:—(1) Spermatorrhea is a disease of its own kind. (2) Spermatorrhea has nothing in common with pollutions. (3) Spermatorrhea does not usually lead to impotence. (4) Pollutions may or may not be associated with spermatorrhea. (5) Pollutions are liable to lead to impotence. Under the first head he shows that the seminal loss in spermatorrhea is not constant; but that it occurs under the influence of expulsive or muscular effort, as coughing, sneezing, straining at stool, etc. This is associated with a sense of smarting in the urethra, and the patient is aware that fluid is running along the urethra and this is sometimes associated with a feeling of depression, mental and physical, lasting from fifteen minutes to three hours. In pollutions the loss occurs without effort; the loss is a steady, continuous one; the condition is a passive one. At stool there is no special increase, but at the end of the act of defecation a gush of fluid may ensue, varying from a few drops to a teaspoonful, unattended with any pleasurable sensation. In spermatorrhea the seminal loss occurs toward the end of the act of urination, when

the expulsive efforts are made to eject the few drops of urine, which remain in the canal. In pollutions the expulsive power is almost completely lost and the patient is unable to expel the last few drops of urine, which leak away, accompanied with or followed by a seminal loss. The urinary symptoms in spermatorrhea are tonic, in pollutions atonic. In spermatorrhea the patient is not neurasthenic or hypochondriac—is mentally sound. In pollutions he is depressed, easily fatigued in mind or body, is hopeless in this world and doubtful or indifferent to the next world. In spermatorrhea the patient is virile and capable of coitus, though with advanced forms the erections may not be good. In pollutions the patient has no proper erections and cannot perform the sexual act, though he continually wishes to do it. He feels that the more he wishes it the less capable he is of performing his sexual function. He is irritable, has no appetite, is a curse to himself, a trial to his wife and a bore to his neighbors. Unless spermatorrhea becomes associated with pollutions, it is curable. The patient with pollutions is sexually, mentally and physically impotent and becomes a wreck. The patient with spermatorrhea occasionally has "the blues," a headache or notices that he is not up to the mark, but this condition passes off. The patient with pollutions is aware that he is not up to the mark and he stays there. Like healthy men the patient with spermatorrhea has an occasional nocturnal emission, accompanied with an erection. The patient with pollutions does not have that kind of emission. The emission is without erection, unless possibly there may be a feeble attempt at one, and in the morning he rises without any erection to greet him. With him the penis is as dead as Julius Caesar, whereas in spermatorrhea the patient rises with all the evidence of virility upon him, and rejoices to think that he is yet a man.

The Treatment of Puerperal Fever.—Galabin (*The Practitioner*, March, 1905), considers local disinfection the first step to be taken, sores and ulcers being treated according to the intensity of the local lesion. A specimen of the secretion from the uterus should be submitted to microscopical examination and culture. The uterus should be irrigated with an antiseptic fluid, if the temperature exceeds 102° F. The bowels should be opened with calomel, followed by sodium sulphate. If the temperature reaches 103° or 104° F., the uterine cavity should be explored with the finger. This is better than repeated irrigation or curettage. The curette may be used if the finger detects substances which it cannot remove.

Plugging with iodoform gauze is advisable if bleeding is persistent. The diet should be principally fluid, abundant and administered in feedings at short intervals. Saline injections into the rectum or cellular tissue are frequently beneficial. Cold, quinine, tincture of iron, strychnine and phenacetine will often be found useful means of treatment. Antistreptococcic serum is thought worthy of trial, also nuclein and silver. Abscesses should be opened as soon as they are apparent. Hysterectomy should rarely be practised. Pyosalpinx may be treated by abdominal or vaginal section, according to the indications.

Treatment of a Crushed Hand.—Lejars (*Semaine Medicale*, March, 1905), advises to anesthetize the patient, apply Esmarch's bandage, cleanse the wound and neighboring parts thoroughly, remove all foreign bodies and debris of whatever nature, bits of bone, flesh, etc., amputate any portion which has been crushed beyond hope of recovery, readjust the tissues as nearly as possible to their normal condition, suturing the divided tissues when necessary, remove Esmarch's bandage, check hemorrhage, drain freely and apply a sterile dressing.

Lead as an Abortifacient.—Dr. Hall (*British Medical Journal*, March 18th, 1905), reports a series of thirty cases of lead poisoning, resulting from the use of lead to produce abortion. This practice prevails in the Midland districts of England, and is gradually increasing. The drug is usually taken in the form of patented pills—for "regulating" the monthly periods, etc. The author has purchased and analyzed several varieties of these pills and finds that they all contain small quantities of lead. All of his patients were women of child-bearing age, usually married, and mothers of families. Of the first 18 patients, 11 did miscarry, one was pregnant, five admitted delayed menstruation while one denied any menstrual trouble. More than half the patients admitted having taken an abortifacient.

The Hospitalization of Pauper Inebriates in Ontario.—A scheme for the hospitalization of pauper inebriates in this Province was endorsed by the Ontario Medical Association and recommended to the Ontario Government several years ago. Briefly stated it is as follows: (a) The appointment by the Provincial Government of an inspector of inebriate institutions. This inspector should be a qualified medical practitioner who has made the medical treatment of inebriety a special study. (b) The inspector should

organize in the City of Toronto a hospital for the medical treatment of pauper inebriates of the more hopeful class, and in other cities of the province an inebriate department in the existing general hospitals. (c) The inspector should also arrange in connection with each institution, where inebriates are received and treated, an organization or agency for the adoption of the probation system, and giving a helping hand to the patients subsequent to treatment for inebriety. (d) The inspector should provide for the adoption of a rational course of medical treatment for inebriates in accordance with the tenets of legitimate medicine only, to the exclusion of the use of any proprietary remedy. This scheme was also endorsed by the Canadian Medical Association in 1899. A considerable sum of money is collected annually from the license-holders of the Province for the privileges of selling alcoholic liquors, and a third of it goes into the provincial treasury. It is but fair, therefore, that a percentage of the amount collected should be devoted by the Provincial Government to the nursing and medical treatment of inebriates, who are, through poverty, unable to pay the fees required to obtain admission to private inebriate hospitals. Temporary privation of liberty would form an essential feature in the management of chronic forms of inebriety. If this requisite were permitted by law, and a suitable hospital provided, the medical and hygienic parts of the treatment would be so facilitated that the most beneficial results might be looked for even in very bad forms of inebriety.

To Register Tuberculosis.—The efforts of physicians to obtain the compulsory registration of tuberculosis in Ontario have been unsuccessful so far; but a continued agitation in favor of this reform may produce better results in a year or two. In the meantime, public opinion, based on medical opinion, favors this reform. We notice, in *American Medicine*, that the Maryland Legislature has passed a law regarding tuberculosis. This law obliges the physicians of that State to report to the Board of Health within seven days all cases of tuberculosis, upon special blanks provided by the Board. The reports are to be kept secret. The Maryland State Board of Health has received the first instalment of supplies for the enforcement of the new law—30,000 sputum cups, 2,500 metal cupholders and a lot of chemical supplies.

Morton, the Discoverer of Anæsthesia.—The discoverer of surgical anæsthesia, Dr. W. T. G. Morton, was an American, a dentist by profession. The first public demonstration of etheriza-

tion took place at the Massachusetts General Hospital, Boston, October 16th, 1846. On this occasion Dr. Warren operated for the removal of a tumor. When the operation had been completed on the etherized patient, the operator, Dr. Warren, turned to the audience and said slowly and emphatically, "Gentlemen, this is no humbug," and Dr. Bigelow who was present, remarked, "I have seen something to-day that will go around the world." The inventor of the term "anesthesia," Dr. Oliver Wendell Holmes, writing in 1893 to Mr. Edward Snell, author of an article on anesthesia in the *Century Magazine* of August, 1894, grants "honorable mention" to Dr. Charles T. Jackson, a physician, and Dr. Horace Wells, a dentist, in connection with the discovery and continues, "This priceless gift to humanity went forth from the operating theatre of the Massachusetts General Hospital, and the man to whom the world owes it is Dr. William Thomas Green Morton." In the same letter Dr. Holmes credits Sir James Y. Simpson with introducing chloroform into surgical and obstetric practice, but declares unequivocally that surgical anesthesia was not discovered by that gentleman.

J. J. C.

PERSONALS.

DR. N. A. POWELL's only child, Miss Mercy E. Powell, B.A., was married on Monday evening, May 15th, in the chapel of Victoria College, Queen's Park, Toronto, to Dr. Edward Allister McCullough, B.A. On the return of Dr. and Mrs. McCullough to Toronto in a few weeks they will settle at 167 College St., Dr. McCullough becoming Dr. Powell's assistant.

DR. HAMILL, who conducts the Canadian Medical Exchange for the purchase and transfer of medical practices and properties between medical men, wishes us to state that at no time during the past ten years has he been in a position to so fully meet the wants of all needing a practice as at the present time, as he has over thirty medical practices for sale in all parts of Ontario and the North-West Provinces, all of which are most inviting opportunities to secure a lucrative practice at most inviting prices and terms. Physicians desiring a practice can secure what they desire better by applying to Dr. Hamill than by all other methods combined that they could adopt.

News of the Month.

BANQUET TO DR. OSLER IN NEW YORK.

AT what one of the speakers called "the largest medical dinner ever cooked," Dr. William Osler, who has achieved fame as the reputed author of the remark that all men are worthless after forty, and should be chloroformed after sixty, a remark that has been taken entirely too seriously, was entertained at dinner by his colleagues of the profession at the Waldorf-Astoria on May 2nd.

That Dr. Osler had other recommendations beside the utterance attributed to him was evidenced by the fact that the most eminent men of his profession from all parts of the United States and Canada and one or two from across the seas attended the function and that illusion to his alleged theories of age were few and far between.

In reality the dinner was a farewell testimonial on the eve of Dr. Osler's departure from the Johns Hopkins University, at Baltimore, for the University of Oxford, where he is to become Regius Professor of Medicine, and so great was the interest in the event among medical men that the gathering was in effect of an international character, at least one man, Dr. F. Sandwith, having come from London for the express purpose of being included in it.

Three speakers had already paid tribute to the guest of the evening before any mention was made of the so-called "Osler theory," and then Dr. A. Jacobi, of New York City, who was discussing Dr. Osler in his capacity as author and physician, made passing reference to it as an invention of the press. A few moments later, however, Dr. S. Weir Mitchell, of Philadelphia, became a trifle broader in the matter.

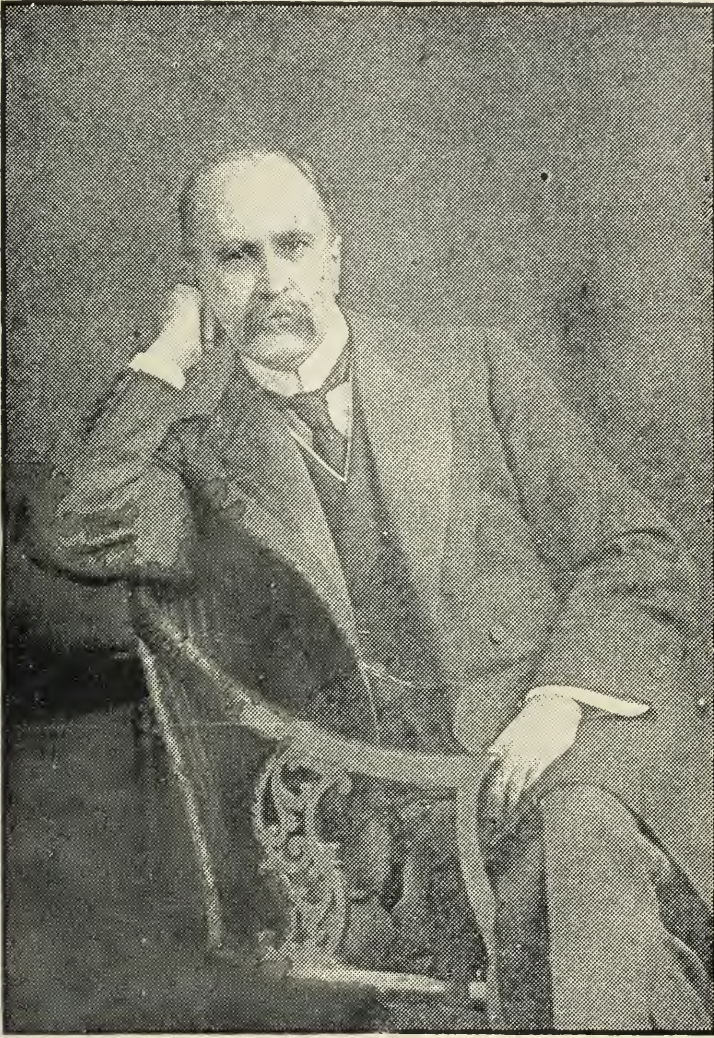
It was Dr. Mitchell's appointed function to present to Dr. Osler a copy of Cicero's "De Senectute," which might be liberally translated as Cicero "On Old Age." Dr. Mitchell said the copy chosen was one of the early translations of James Logan, of Philadelphia, and bore the imprint of Benjamin Franklin. Then he added casually :

"What humorous friend selected this work I do not know, nor do I know who choose me as the person to present it, but I suppose it was because I was the youngest available man to hand to my venerable friend what a genius who flourished nineteen hundred years ago, had to say on the subject of old age."

As Dr. Mitchell is seventy-five years old, and Dr. Osler only fifty-six, the sally was greeted with a burst of applause. When it had subsided, Dr. Mitchell went on to say :

"The subject, by the way, is one, if we can trust the press, that Dr. Osler thinks should not exist at all—old age."

There were nearly six hundred members of the medical profession seated in the main banqueting hall of the Waldorf, when



DR. WILLIAM OSLER, REGIUS PROFESSOR OF MEDICINE,
OXFORD UNIVERSITY.

the oysters were brought on, and before long all the boxes in the balcony were filled with parties of women, including Mrs. Osler, her son, now 10 years old, and her mother, Mrs. Grover Cleveland and wives and daughters of the more eminent guests.

Behind the guest of honor were intertwined, in a beautiful

manner, the American and British flags. The decorations consisted of large branches of budding trees, including cherry and orange blossom. Music was rendered by the Hungarian Band. The menu was the finest that the Waldorf could get up, the quality and age of the wines being especially commented upon.

It was after ten o'clock before Dr. James Tyson, representing the University of Pennsylvania, who presided, arose to introduce the first speaker, who was Dr. F. J. Shepherd, of Montreal, where for some years Dr. Osler was a member of the Medical Faculty of McGill University.

Dr. Shepherd spoke with great feeling of Dr. Osler's early display of extraordinary talents there, and laid particular stress upon his wonderful ability in the making of autopsies. These remarks were greatly appreciated on the main floor, but it was noticeable that no applause came from the galleries.

This, however, was the only occasion during the feast, that purely pathological matters were referred to, nearly all the remainder of the time being devoted to a recital of the achievements of Dr. Osler in the past and the promise of his future at Oxford.

After Dr. Shepherd, the other speakers and their topics were:—Dr. J. C. Wilson, on "Dr. Osler in Philadelphia, as Teacher and Clinician"; Dr. William H. Welch, on "Dr. Osler in Baltimore, as Teacher and Consultant"; Dr. Jacobi, of New York City, on "Dr. Osler, Author and Physician," and the presentation by Dr. Mitchell, of Philadelphia. Dr. Osler himself, was the last to speak, in acknowledgment of the almost overwhelming tribute paid him.

Dr. Osler began by speaking of the overwhelming regard and friendship shown to him by his many friends in the profession in this country.

"I have had but two ambitions in the profession," he went on: "first, to become a good clinical physician, and second, to build up a great clinic in this country on Teutonic lines; not on the lines which have been followed in this country, nor on the lines which have been followed in England, but on the lines which have proved so successful in Germany, and which have put German medicine to-day in the fore-front of the medicine of the world. The opportunity which I have had at the Johns Hopkins University to carry out these ideas, I am truly thankful for. How far I have been successful remains to be seen. But if there is one thing we need to change in this country, it is our present system of clinics and hospital equipment. Organized on German lines, there would be more work done in this country in five years than Germany could do in ten.

"I have had three personal ideals. One, to do the day's work well and not to think of to-morrow. My second has been to act the Golden Rule, as far as it lay in my power, to my professional brethren and toward the patients committed to my care; and my third has been to cultivate a certain measure of equanimity, that I might bear success with humility; that I might bear the affection

and esteem of my friends with humility, and that if the day came, when sorrow and grief and anguish and distress lay hold of me, I might meet it with the equanimity befitting a man.

"What the future has in store for me, I cannot tell you, you cannot tell, nor do I care, so long as I carry with me, as I shall, the memory of the past you have given me. Nothing can take that from me, whatever betide. I have made mistakes; they have been mistakes of the head, not of the heart. In my sojourning among you, I have loved no darkness, sophisticated no truth nor delusion, and allowed no fear."

Dr. Osler, of course, occupied a seat at the centre of the guests' table, with Dr. Tyson on his left and Dr. W. W. Keen, of Philadelphia, at his right. Others at that board, all of them physicians, were: William B. Gibson, D. K. Dickinson, D. B. St. John Roosa, Archibald E. Malloch, Francis Delafield, J. C. Wilson, Frank Billings, Frederick C. Shattuck, John H. Musser, James R. Chadwick, S. Weir Mitchell, F. Sandwith, John S. Billings, A. Jacobi, Edward L. Trudeau, Stephen Smith, W. H. Welch, E. G. Janeway, W. M. Polk, Eugene F. Cordell, John A. Wyeth, Robert Fletcher, S. Solis Cohen, F. X. Dercum, John B. Deaver, Thomas Darlington, Charles Loomis Dana, Simon Flexner, E. M. Leplace, William James Morton, Arthur V. Meigs, Roswell Park, General P. M. Rixey, General George W. Sternberg, E. C. Spitzka, Charles E. de M. Sajous, Reginald H. Sayre and Horatio C. Wood. From Canada there were present, among others: Dr. Allen Baines and Dr. Herbert Bruce, Toronto; Dr. N. H. Beemer, of Mimico; Dr. F. J. Shepherd, of Montreal; and Dr. Ingersoll Olmsted, of Hamilton

"OUR REGIUS PROF."*

- | | |
|---|---|
| <p>1. Our chief, we turn to thee,
Beloved from sea to sea.
To thee we sing.
We love thy genial ways,
Thy wit and merry plays,
Thy matchless eyes' dark rays,
And tribute bring.</p> | <p>3. May he find tophi there,
Bardolphian noses rare,
Undiagnosed.
Long may his eye be keen,
His touch to feel the spleen,
To auscultate the Queen,
This is our toast.</p> |
| <p>CHO.—God save the mighty chief,
We part from him in grief,
God save our chief.
God save our Regius Prof,
Our hats to him we doff,
God save our Regius Prof,
God save our Prof.</p> | <p>4. He'll find there devotees
Of all the deities
In England's realm.
There Vulcan holds the fort,
Venus and Bacchus sport,
Mars also has his Court
In London town.</p> |
| <p>2. Look at his arteries,
Judge of his age by these,
Scarce thirty-five.
May he ne'er pass his prime
In symptom or in sign,
Younger in spite of time,
Long live our chief.</p> | <p>5. May he come back to us,
Still to inspire us,
His absence brief,
Send him victorious,
Happy and glorious,
Long to reign over us,
Perennial chief.</p> |

* Composed and sung by the Saint Johns Hopkins Gastric Quartette, at the dinner to Dr. Osler, The Walled-off Castoria, New York, May 2d, 1905.

DR. CHARLES O'REILLY'S RESIGNATION.

DR. CHARLES O'REILLY, for 29 years superintendent of the Toronto General Hospital, sent in his resignation to the Board last month.

Dr. O'Reilly has devoted his professional life to building up the



DR. CHARLES O'REILLY, RETIRING MEDICAL SUPERINTENDENT,
TORONTO GENERAL HOSPITAL.

hospital to what it is to-day, the largest in the Dominion, having over 400 beds, and few hospital men are better or more favorably known in Canada, and it is but right that his long public service, exceptional executive ability and successful management, should not be overlooked when he retires. Dr. O'Reilly's

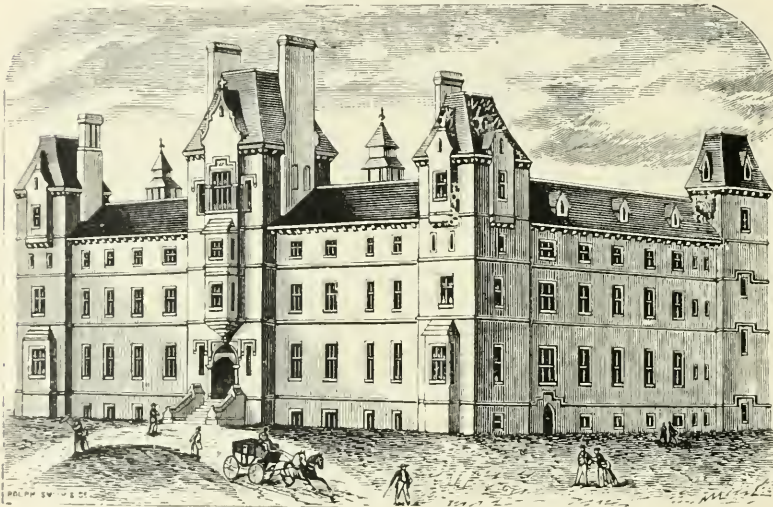
relations with the public have always been most cordial, and his well-known courtesy has earned him their heartiest good wishes for a pleasant holiday. Dr. O'Reilly will, of course, remain on duty and in full charge for the present and until arrangements are largely completed in the interest of the hospital by the Board to fill his very important position, and in all probability though his resignation will not really come into effect until the end of the year, he hopes to be relieved of duty by the middle of this month.



THE LATE WALTER S. LEE, CHAIRMAN BOARD OF TRUSTEES, TORONTO
GENERAL HOSPITAL, 1889-1902.

Dr. O'Reilly matriculated at McGill College, where he secured the degree of M.D.C.M., but not being of age at that time, did not receive the diplomas for several months. Immediately thereafter he was appointed resident physician of Hamilton City Hospital, where he remained many years, during which time he also held several other important positions, viz., public vaccination physician to the Board of Health and Police, and assistant surgeon of the 13th Battalion of Hamilton. He was also Secretary-Treasurer of Hamilton Medical and Surgical Society. In January, 1876, on his

resignation of the Hamilton Hospital, he was tendered a public banquet, where he was presented with a complete and handsome service of silver plate and an illuminated address by the Mayor and aldermen, also with a marble clock by his friends of the medical profession. Since that date Dr. O'Reilly has held the position of medical superintendent in the General Hospital, Toronto. Under his regime the hospital has made great strides, and among the additions to the institution are the Andrew Mercer Eye and Ear Infirmary, the "pavilion" for diseases of women, and the Burnside Maternity Hospital, and the west wing. Nearly one hundred thousand patients have been admitted and nearly 4,000 births have taken place in the maternity branch. In the year 1881 the training school for nurses was inaugurated and opened with an attendance of half a dozen, and a few years ago the



ORIGINAL HOSPITAL, 1854-1878.

present home was enlarged so as to accommodate over four score nurses, now in the training school. Nearly all the important positions in the schools and hospitals of Ontario are held by its graduates.

The Emergency down-town hospital was designed by Dr. O'Reilly and Mr. W. S. Lee, and was opened several years ago to afford first aid only, where annually over 2,500 emergency cases are treated. During the North-West Rebellion the General Hospital Ambulance Corps was organized, and sent on active service, and through Dr. O'Reilly also the first ambulance in Canada was presented to the city in 1881. In 1890 Dr. O'Reilly received the honorary degree of M.D.C.M., from Trinity University, in recognition of his services and zeal in the promotion of clinical instruction for medical students and the institution of oral and bedside examinations. He first

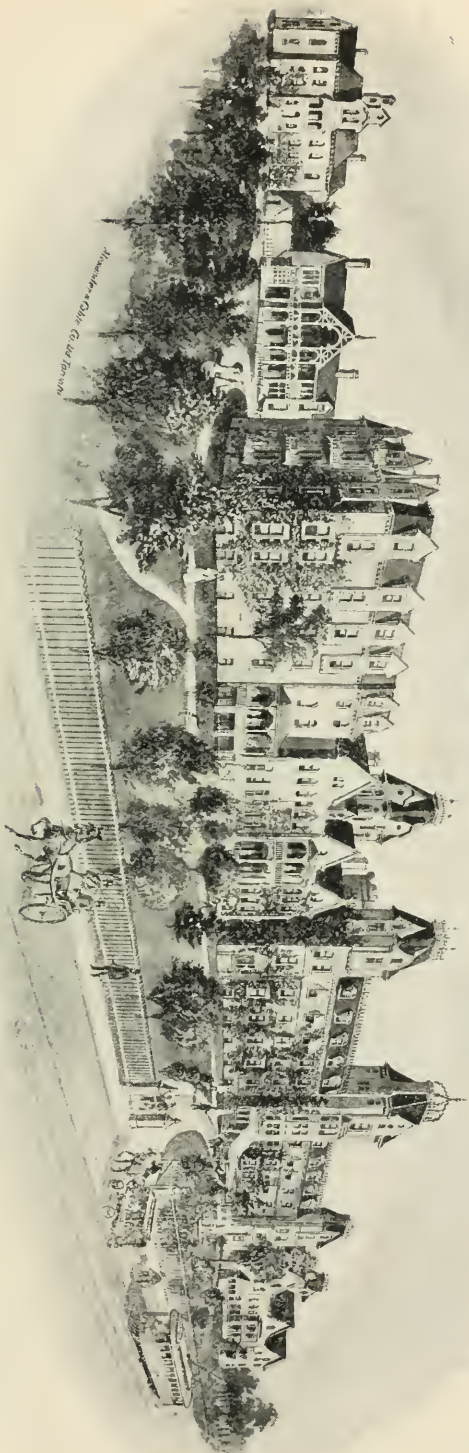


Illustration of the Old General Hospital

TORONTO GENERAL HOSPITAL, TO-DAY.

conducted examinations for the Medical Council in 1879, and was examiner for the University of Toronto in clinical surgery for over eight years. He also has held for many years, and still holds, the position of clinical examiner for Trinity University and Ontario Medical Council. Among other positions held by him are those of



EMERGENCY BRANCH, TORONTO GENERAL HOSPITAL, BAY STREET.

international consultant on the charity hospital surgical staff in Buffalo, Vice-President of the Association of Hospital Medical Superintendents of the United States and Canada, and Vice-President of the Ontario Hospital Association. He was also some years ago asked by Sir Henry Burdett, of London, to act as honorary representative in Canada of the "Royal National Pension

Fund for Nurses," under direct patronage of the Prince and Princess of Wales. He is patron of the Post-Graduate Society of Toronto, the members being chiefly house staff and ex-house staff men of the hospitals of Toronto. He is a registered practitioner in Michigan, New York and the Province of Quebec, and he is also one of the Vice-Presidents of Toronto District of the St. John Ambulance Associates of England.

Dr. O'Reilly's retirement will be regretted, not only by his personal friends but by the medical staff and officials under him, to all of whom he has been uniformly loyal and kind, both officially and privately, and the patients, numbering over 100,000, who have passed through the hospital since he became superintendent, will long remember his well-known name, which seems almost inseparable from that of the Toronto General Hospital.

In addition to a half-tone of Dr. O'Reilly himself, we publish one of his life-long friends, the late Mr. Walter S. Lee, who was Chairman of the Board of Trustees for several years prior to his demise. We also print a wood cut of Toronto General Hospital as it was from 1854-1878, one of the Hospital as it now stands and the Emergency Branch on Bay Street.

The Board of Trustees of the Toronto General Hospital met recently. After passing a vote of condolence with the family of the late Mr. George Gooderham, the Board formally accepted Dr. Charles O'Reilly's resignation as medical superintendent of the hospital. It is understood that Dr. O'Reilly's active connection with the hospital terminated May 31st. The Board, though, recognizing his long service, will continue to pay his salary until December 31st, 1905. Further, the Board of Trustees decided that Dr. O'Reilly shall receive a gratuity of \$1,000 a year for five years, dating from January 1st, 1906, consequently extending to December 31st, 1910. Dr. O'Reilly sails for a prolonged holiday in the Old Country on June 22nd.

A LOVING CUP PRESENTED TO DR. O'REILLY.

THE annual dinner of the Toronto Clinical Society was held at the Albany Club on Saturday evening, May 6th, and like its predecessors proved to be a very enjoyable function. Covers were laid for about one hundred. Dr. Herbert Hamilton, the president of the society, presided. A very pleasing incident of the occasion was the presentation to Dr. Chas. O'Reilly of a sterling silver loving cup. The toast of the Toronto General Hospital was proposed by Dr. Adam H. Wright, who, when about to close his remarks, handed the cup for presentation, which he made in a few well chosen and felicitous words. He alluded to Dr. O'Reilly's long term of office, the happy relations which had existed between him and the profession, and wished him the fullest enjoyment of the well-earned holiday, which he is about to take in company with his wife and

son, Dr. Brefney O'Reilly. Dr. O'Reilly was evidently taken greatly by surprise, and in rising to reply, it could be observed, was visibly affected. He, however, expressed in his usual happy and ready manner his thanks to the donors, and his appreciation of the honor which had been done him. Dr. Adam Wright was the recipient of many congratulations from his confreres upon the publication of his comprehensive book, which is recognized as a work of exceptional value, both as a handbook for students and a work of reference for practitioners. (A review of Dr. Wright's book will be found in this issue.) The cup as presented bore, in addition to a crest, the words, "And we'll remember you—O'Reilly" 1876-1905.

GOVERNMENT ASKED TO ESTABLISH A PROVINCIAL DEPARTMENT OF PATHOLOGY.

AN influential deputation of medical men was recently introduced to the Provincial Cabinet and made a request for the creation of a Provincial Department of Pathology in connection with the Ontario asylums, the sequel to the steady increase during the past decade in the number of cases of insanity, as well in Ontario as elsewhere, which has been for years a matter for serious consideration and alarm, so recognized not only by chemists, but by all who have devoted time and thought to the subject. In almost every other department of medical science there has been an advancement of knowledge that has resulted in the diminution of deaths from disease, and improved preventive methods. In the realm of mental troubles alone science has been for years practically at a standstill.

The reason is not far to seek. There has been no systematic research or scientific investigation of the causes of idiocy, imbecility or lunacy. The common objection to such being undertaken is "that all is being done that can be done," but the pioneers in the medical treatment of the insane a century ago, when lunatics were mechanically restrained in jails and were flogged, starved, chained or confined in dark cells, and were bled, purged, or puked with the beneficent object of driving the devil out of them, probably met with the same objection.

It is with the object of changing this condition of affairs in Ontario and introducing method, system and sense into the treatment of our insane that the deputation organized by Dr. W. N. Barnhardt interviewed Premier Whitney to urge upon him the vital necessity of creating the department referred to. There is in the movement no reflection on the present management of our asylums. They are in charge of medical directors well fitted for their tasks, whose work compare favorably with that done in similar institutions anywhere abroad. But our asylums are to all intents separate and individual. There is no common centre where results are noted, and where the

knowledge gained can be tabulated, considered and exchanged so that the experience of one may be utilized to the advantage of all. Furthermore, the present staff has now all it can do without devoting time to research work. The daily oversight of hundreds of insane patients, the dispensing and administration of medicines, and the making out of statistics, daily records and correspondence with relatives and friends is a sufficiently heavy task. Hence the need of a special department for research work.

The proposal is not an untried innovation. Its value has been tested and proved in Germany and several States of the Union, and it has already been favorably considered by the late Government. In short, the position is this: There are in Ontario 6,000 lunatics confined in asylums. They are well cared for, washed, fed, exercised and put to bed. But, broadly speaking, our asylums are mere houses of detention with but little attempt made at study or cure.

The result is that this vast amount of valuable material is going to waste. This mine of information is being left unworked when every effort should be made to balance the increase in the number of insane by improving the methods of prevention and cure.

The objects of the department would be, to throw light on the early stages of the disease, a field at present neglected and unexplored, to observe and classify the forms of insanity, using for this purpose the observations of the directors of the asylums, and to secure uniform autopsies and prepare and preserve microscopical specimens of the brains and spinal cords of such as die in our institutions. This latter part of the work, while important, is not, as has been supposed, the chief end of pathology, which aims at the prevention of the disease.

The discovery that germs were the cause of inflammation in wounds resulted in a revolution in surgery. This discovery was made after years of careful research. It may fairly be asked whether similar care and time spent on the study of mental diseases may not bring about a similar happy reformation.

It is to be earnestly hoped that the Cabinet will unhesitatingly do as requested, there being no question as to the scientific value of the proposed department towards the curative treatment of the insane.

IS TORONTO TO HAVE A NEW MILLION DOLLAR HOSPITAL?

ONE more large problem confronts the Board of Control and Council, another million dollar scheme, following hard on the heels of the Union Station settlement. It is a new General hospital.

A little while ago Controller Spence remarked at a Board of Control meeting that Toronto had done nothing for hospitals, had not had to assume any responsibility for hospital accommodation. Its opportunity now confronts it.

Briefly the scheme is this: The hospital trustees will undertake to raise \$700,000; the Ontario Government will add to that \$300,000. The million would be spent on buildings and equipment. This is the plan that has been laid before the Board of Control.

The proposed site is at the south-east corner of College street and University avenue, 500 x 600 feet, nearly seven acres. It would extend east to the Dental College and south to Christopher street.

Two objects are aimed to be accomplished by the scheme: First, to provide larger, better equipped and modern buildings for the General Hospital, of which it stands very greatly in need; second, to provide better hospital clinical facilities for the medical faculty of the University of Toronto. It is for this last that the government is prepared to contribute so large a share of the cost.

To the minds of the Mayor and Controllers the question presented itself under three heads: First, whether or not the city should enter the scheme and so admit its responsibility to provide hospital accommodation, approving this undertaking as the best means of discharging that obligation; second, how to re-adjust the relations between the city and the hospital; third, how to raise the money, submit a by-law to the people or get authority from the Legislature.

No one will deny the city's responsibility in the matter; at any rate, the Controllers do not. As to policy, it is simply a question of concentrating the municipal fund to insure one great institution or dividing it up among the hospitals as they are at present.

If the Board of Control recommends Council to go into the scheme it will be upon the strict understanding that the city is to have, if not a preponderating, at least a very large say in the management of the institution. The University also would be largely interested, and as far as can be learned it is the intention to organize a new trust, in which the city and the University would be the controlling elements.

If Council decides to join in the undertaking a by-law will likely be submitted to the people. Probably authority to issue the necessary debentures could be obtained from the Legislature, because the Government is anxious to see the scheme floated for the sake of the University, but there is a strong feeling in the Board of Control that the people should be consulted, and as Controller Hubbard says, "I'm always ready to trust the people."

The hospital trustees will have a pretty large order in hand in undertaking to raise \$700,000. Mr. Cawthra Mulock's contribution of \$100,000, however, makes a handsome beginning. Another \$100,000, it is said, has been promised by a lady. The amount to be raised would then be reduced to half a million dollars.

The hospital's endowment brings in at present \$25,000 a year. If the new plan goes through, when the new buildings are completed, the Emergency Hospital down town could be done away with. To erect and equip the new buildings would require probably five years.

Since the above was printed, the trustees of the Toronto General Hospital have issued the following statement for publication, so that there is now very little question as to the splendid future for Toronto, so far as hospital accommodation is concerned. We congratulate Premier Whitney and his Cabinet upon their foresight and liberality in this connection.

The action of the Government in authorizing an advance of \$250,000 by the University of Toronto to the proposed reorganization plan of the Toronto General Hospital, and the advance of a further \$50,000 out of the University endowment toward the purchase price of a suitable site for the hospital, makes the present a natural time for the trustees of the Toronto General Hospital to make known to the public the character of the negotiations which have been in progress for many months.

Recognizing that the present premises were unequal to the requirements of a modern hospital, and that new buildings and equipment were highly desirable, they approached the University authorities, the Government of the Province and the Board of Control of the city, asking if there was not some basis for a fusion of interests that would work out to the common benefit of the city and the University, and meet the responsibility of the Government for the provision of adequate medical education for the University of Toronto School of Medicine. It was felt that if it were possible to secure such co-operation, it would be proper for the present Board of trustees of the Toronto General Hospital to tender to the Government the trust under which the property and endowment is held at present, and to have a new trust formed, which would recognize the interests of all the contracting parties named above.

The response on the part of the Government and the University has been the setting aside of the above two sums, aggregating \$300,000. It is hoped that the response on the part of the City Council will be \$200,000, and that individual citizens will contribute, say \$800,000.

With this sum a central site will be secured and a general hospital, an emergency hospital and out-patient hospital will be built upon it. The public wards will be available for the medical faculty of Toronto University, for educational purposes, and for the moderate expenditure of \$300,000 the Province will have secured for its Provincial Medical School all the necessary advantages which they would secure in a direct ownership of a hospital establishment costing \$1,300,000 in land, buildings and equipment, and a yearly income of \$25,000. The city will enjoy the advantage of a modern, well-equipped hospital, capable of performing to the highest degree of efficiency the service necessary for the comfort of the sick and suffering.

It would not have been possible for any one of the co-operating bodies to have alone acquired a site and buildings of the type at present proposed, and the fusion of interests which has taken place seems to provide the needed facilities for all with a fair distribution of the burden. (Signed) J. W. Flavelle, Chairman; Thomas Urquhart; M. J. Haney; Peter C. Larkin; Cawthra Mulock.

CANADIAN MEDICAL DINNER IN LONDON.

DR. DONALD ARMOUR, F.R.C.S.E., entertained the ex-members of the Toronto General Hospital, in England, at dinner some weeks ago in London, those present being Drs. Geo. Badgerow, Colin Campbell, E. D. Carder, T. M. Cochrane, A. C. Hendrick, H. Lowry, W. J. Mallock, J. R. McCollum, Geo. W. Ross, A. T. Stanton, G. A. Schmidt, P. W. Saunders, A. B. Wright, T. P. Weir and S. H. Westman. The host, Dr. Armour (son of the late Chief Justice Armour), is a graduate in arts and medicine, Toronto University, and was on the house staff of the Toronto General Hospital, 1894-5. He welcomed his Candian confreres, and proposed the "King," "Canada and the Empire" and "Toronto General Hospital," coupled with the name of Dr. Charles O'Reilly. The toast received a perfect ovation, with "three times three" for their old friend and Principal. As this toast was responded to by every man present, it was quite impossible for the list of other toasts to be either proposed or responded to, so great was the flow of eloquence. It must be gratifying to Dr. O'Reilly and his many friends to hear of his name being honored thus across the sea by those who know him best and so well, and to feel that his life-long service in hospital life and his great assistance in clinical teaching, is so much appreciated by ex-members of his own house staff, who now number over 225, and also the thousands of medical men who hold the certificates of Toronto General Hospital, signed by his well-known signature.

THE ONTARIO MEDICAL ASSOCIATION.

THE Ontario Medical Association will begin its twenty-fifth annual meeting on the morning of Tuesday, June the 6th, under the presidency of Dr. Wm. Burt, of Paris.

A programme full of papers of an exceedingly interesting character has been secured through the efforts of the energetic Committee on Papers. Beside the large number of local men who will participate, the Committee feels itself honored in being able to announce papers to be read by two men from across the line who have distinguished themselves in their special fields of work—Dr. A. J. Ochsner, of Chicago, the eminent surgeon, and Dr. W. B. Pritchard, of New York, the neurologist associated with the post-graduate hospital of that city.

The Committee on Arrangements will provide for a few hours of entertainment to relieve the strenuous programme. This will take the form of a tea at the Ontario Medical Library on Tuesday afternoon, at which the men from outside the city will be able to see the newly acquired home of the library and have an opportunity for a social hour together. On Wednesday evening an informal gathering will be held in the Biological Buildings, at which a

pleasurable entertainment of a scientific and social character will be provided, taking the place of the burdensome luncheon which has heretofore held sway. Friends from the province are requested to bring their wives with them and help the city men with their ladies make this a most enjoyable evening. The proceedings will be quite informal, and it is not desired that anyone bring his dress suit to adorn the occasion.

The fact that the post-graduate course of the medical faculty and the meeting of the executive health officers of the province immediately precede these Sessions, should ensure the largest attendance in our history. Even though that seems assured, the value of these Sessions to the younger practitioners should not be forgotten and should ensure a large attendance of young men.

Any association which, through a quarter-century of existence, has steadily striven for absolute fairness and justice as between man and man for high professional ideals and the well-being of society, has in it the elements of perpetual strength and deserves the support of every man, and especially of the younger men, who will most be profitted by the conditions which the Society has been largely effectual in securing.

ITEMS OF INTEREST.

McConnell-Lister.—The marriage of Miss Frances Charlotte Lister, daughter of the late Mr. Justice Lister and of Mrs. Fred. Lister, of 92 Spadina road, to Dr. John Herbert McConnell, of 625 Dundas street, took place at the Church of the Redeemer on April 19th. The Rev. Septimus Jones performed the ceremony, and Mr. Tusham, organist of the church, rendered the musical part of the service.

A Doctor's Dog-cart for Sale.—Any physician wishing to purchase, for less than one-half of the cost, an open two-wheel dog-cart, should address a postal card to Box 23, CANADIAN JOURNAL OF MEDICINE, Toronto. The cart has lancewood shafts, full Collinge axles, trimmed in English all-wool green cloth, and was built by the well-known firm of John Burns & Sons, Toronto. It cost \$275.00, and can be bought for less than half if taken at once.

A New Physicians' Supply House in Toronto.—Messrs. Chandler, Ingram & Bell take this opportunity of informing the profession that on May 1st they purchased the entire retail business of Chandler & Massey, Limited, for the Province of Ontario and the Yukon Territory. They will carry a complete line of physicians' and hospital supplies and guarantee the best goods at lowest prices consistent with quality. The accurate filling and prompt shipment of all mail or other orders will receive their closest attention. They have located in their new premises, Yonge Street and Wilton Ave., where they will be pleased to see any of their friends.

Special Fire Precautions at Toronto General Hospital.—

Toronto General Hospital has made special arrangements with the Wilton Avenue section of the fire department, whereby an officer from that station makes bi-weekly visits to the hospital and superintends the fact that all fire appliances are in thorough working order. A separate city fire alarm box is in the main hall, 252, with speaking tubes and direct telephonic communication with every building and every flat.

Canadian Doctors in Control.—Dr. Geo. Chene, of Windsor, and Dr. G. W. Robinson, of Scarboro, were recently appointed house surgeons of St. Mary's Hospital for two years. Dr. Chene is a graduate of Toronto University. The medical and surgical staff of St. Mary's is now entirely Canadian. Dr. McLean, head surgeon, being a native of St. Mary's, Ont., and Dr. McIntyre, assistant, of Forest. St. Mary's Hospital is one of the largest in the city. It is under Roman Catholic control, but non-sectarian in its benefits.

Canadians who Graduated in Edinburgh.—*The Evening Despatch*, Edinburgh, of April 3rd, gives a list of the successful candidates taking the quarterly examinations of the Board of the Royal College of Physicians and the Royal College of Surgeons of Edinburgh, and Faculty of Physicians and Surgeons, Glasgow. Of forty-five candidates entered for the examination, twenty-four passed and were admitted L.R.C.P.E., L.R.C.S.E. and L.F.P., and S.G., and it is interesting to Canadians to note that of these twenty-four successful men six were from Canada. Their names are: Edgar Rae Frankish and Wilmot Alvin Graham, Toronto; Henry James Duff Davidson, Frederick William Green, Alfred Harold Singleton, and Alexander Thomas Munroe.

Post Graduate Course at McGill.—The tenth regular course of instruction for post graduate students will be given by the Faculty of Medicine of McGill University during the month of June, 1905. The course will begin on Monday, June 5th, and will be carried on until Friday, June 30th. This year it has been decided by the Faculty to depart somewhat from the lines upon which the course has been conducted in the past. The principle adopted in framing the work for this session, is to make each course optional, attaching thereto a special fee. The applicant, after paying the initial registration fee, is entitled to select the courses which seem to be best suited to his needs. The programme, speaking broadly, includes general clinics and special courses, the latter having been added this year, in order to meet the wishes of those who desire work along special lines. In addition to stated special courses, if a sufficient number of men—three or more—desire special instructions in any one subdivision of a subject, they may secure it by applying to the head of the department concerned, or to the Registrar. A course will then be arranged according to their wishes, as far as is possible, and a special fee will be charged. A registration fee of \$5 will be charged each student.

The Physician's Library.

BOOK REVIEWS.

Eye, Ear, Nose and Throat Nursing. By A. EDWARD DAVIS, A.M., M.D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School and Hospital, and BEAMAN DOUGLASS, M.D., Professor of Diseases of the Nose and Throat in the New York Post-Graduate Medical School and Hospital, With 32 Illustrations. Pages xvi-318. Size, $5\frac{1}{2} \times 7\frac{7}{8}$ inches. Extra Cloth. Price, \$1.25 net. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

This excellent hand-book is admirably adapted to the use of nurses, but will also be found valuable by students, young practitioners and the profession generally. It is thoroughly up-to-date and contains all the information on these subjects that is necessary for its purpose. Dr. Davis has contributed chapters on the eye, and Dr. Douglas the remainder of the book. We can cordially recommend it to our readers.

H. MACM.

The Vermiform Appendix and its Diseases. By HOWARD A. KELLY, A.B., M.D. Professor of Gynecology in the Johns Hopkins University, and Elizabeth Hurdon, M.D., Assistant in Gynecology in the Johns Hopkins University. Octavo, 827 pages, with 399 original illustrations, some in colors, and 3 lithographic plates. Philadelphia and London: W. B. Saunders & Co., 1905. Cloth \$10 net. Sheep or half morocco, \$11 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

Really a very great work, containing not only the outcome of the individual labors of Dr. Howard Kelly and his assistant, but the aid and co-operation of several of their professional friends. The work of illustration has been very thoroughly done, Dr. Kelly attaching great importance to that feature. He employs different methods of making originals, whether pen and ink, half-tone or colors, with a view to the use for which the picture was designed. He says, "I would beg the reader, therefore, not to be satisfied with glancing hurriedly over these illustrations and their legends, returning at once to the text, but to study each figure with care." The history of appendicitis is discussed in the first 54 pages. The embryology of the subject is based on studies of 54 human embryos. Four chapters are devoted to the anatomy of the subject.

The diseases to which the appendix is liable, its bacteriology and pathology, the etiology, clinical history and diagnosis of appendicitis, occupy more chapters.

Special chapters are given to appendicitis in typhoid fever, appendicitis in children, to appendicitis in pregnancy, and to typhilitis. The remainder of the work is devoted to the surgical procedures for appendicitis. The descriptions of the various ways of doing appendectomy are very full, and the accompanying illustrations artistic.

To a surgeon who has not had the advantage of seeing the various steps of this operation, these illustrations would be invaluable. To a practitioner who does an appendectomy occasionally, Dr. Kelly's ample monograph would be very useful. To the operating surgeon familiar with appendectomy, it will be a work of reference and a source of pleasure. The artists who have aided in the work deserve to be congratulated. The publisher's work is well executed.

J. J. C.

Bit and Spur. An illustrated magazine of quality, devoted to the horse in his best estate. One dollar a year. A. E. Ashbrook, manager. Miss Minnie McIntyre, editor. Chicago, Kansas City, St. Louis and New York.

Doctor, are you horsey? Yes? Then send at once \$1.00 to *Bit and Spur*, Chicago, as your year's subscription. The best horse monthly printed. The first two issues are "out," and are crackerjacks.

Bit and Spur is splendidly illustrated in half-tone, and every month carries with it one or more supplements fit for framing. The text gives all the best and latest horse news concerning not only the United States, but Canada as well. It is printed on heavy coated paper and in chocolate ink, a combination most restful to the eye. Miss McIntyre deserves the heartiest kind of congratulations on her efforts so far, and which, if kept up, will ensure her a record-breaking circulation. Mr. H. Gerald Wade, Parliament Buildings, Ottawa, is Canadian correspondent, and will receive and promptly acknowledge subscriptions.

Elementary Microscopy, a Handbook for Beginners. By F. SHILLINGTON SCALES, F.R.M.S. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1905. All rights reserved. Canadian Agents: Carveth & Co., and Chandler & Massey, Toronto. Price, 75 cents net.

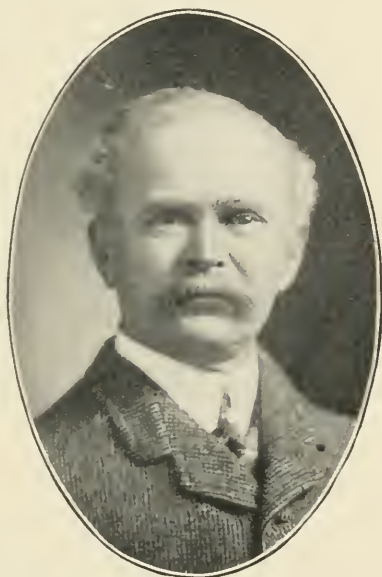
This work is exactly what its name indicates—a work for beginners, and is in our opinion a useful one. It has 180 pages, including an index. There are 78 illustrations.

The construction of a microscope is carefully explained, the stands and mechanism of the best forms of microscope are compared

and one is given very useful information in the selection of an instrument. The care of the microscope receives ample attention, and the closing chapter gives some elementary instruction in cutting, staining and mounting specimens. W. J. W.

A Text-Book of Obstetrics. By ADAM WRIGHT, M.D., M.R.C.S., etc.; Professor of Obstetrics, University of Toronto; Obstetrician to the General Hospital, Toronto, Canada. New York: D. Appleton & Co. 1905. Canadian agents: Geo. Morang Co., Limited, Toronto.

It is with great pleasure that we bring to the notice of the profession the latest addition to medical literature, Dr. Adam



THE AUTHOR OF "A TEXT-BOOK OF OBSTETRICS."

Wright's work upon obstetrics. With the exception of a few small handbooks on various subjects this is the first work of importance, written and published by a Canadian—Osler's book upon medicine being the result of experience gained chiefly whilst resident in the United States. We can safely say that the work is one which not only commends itself to the student, but will be found by the busy practitioner to contain more practical information in smaller space than any work on a similar subject. We do not mean to infer that there is too much condensation; the book shows much thought and an immensity of solid work to bring into less than six hundred pages a thoroughly comprehensive view of the subject.

Doctor Wright has evidently aimed at the practical; he has drawn from his own large and varied experience in conjunction

with the most modern thought and work of authorities the world over. The book is in every detail up-to-date. Whilst there is nothing new or startling there will be found under the various headings sound and well-proven methods of conducting normal labor and the manifold difficulties we are sure to meet are described and the necessary processes detailed in a clear, succinct manner.

Special attention might be drawn to the chapters on Syphilis, Tuberculosis, Bright's Disease and Cardiac Lesions. We know of no work in which these subjects are more fully and thoroughly discussed, leaving the reader in no doubt as to the author's ideas on these intricate subjects in relation to pregnancy and parturition. The physiology of ovulation, embryo and portus of pregnancy and labor, is fully discussed in 80 pages, clear and concise. No pains have been spared to make the minor ailments of great importance. The student and general practitioner will be repaid by reading the chapters on the Puerperal State—Diseases and Intercurrent Diseases of Pregnancy. Appendicitis during Pregnancy receives due consideration. Dr. Wright's opinions are decisive regarding operation in such condition—he quotes many cases showing this complication not to be of great rarity. We might go on giving a resume of many chapters of strikingly well put matter—in fact, but little fault can be found with the work. It reflects the greatest credit on the author. He must be congratulated on presenting to the profession a book of such high-class character. It is one that any practitioner will welcome to his library and, in our opinion, is for the student the best procurable. We think Appleton & Co. must be congratulated also upon the remarkably fine production. The print is excellent, the many illustrations capitally executed and clearly illustrative of the various points brought out. A. B.

Law of Coroners. A practical work on Coroners' Law and Practice in Ontario and the other Provinces and in the Territories of Canada and in the colony of Newfoundland. Fourth edition. By WILLIAM FULLER ALVES BOYES, Junior County Judge, County of Simcoe, Ontario. Toronto: The Carswell Co., Limited, Law Publishers, 30 Adelaide St., East.

This fourth edition will contain, with notice of other poisons, a full account of the deadly wourali poison used by the natives of South America and of Borneo, and an important statement regarding the use and the abuse of chloroform as an anesthetic, together with the authorities to date relating to the Coroners' law and practice. Also a Programme of Proceedings at Inquest, in proper order, and Schedules of Fees and Precedents of a large number of Forms useful to Coroners.

The author has spent the last three years diligently revising his previous editions, and noting the statutory changes in the Law of Coroners made by the various Legislatures.

This fourth edition on the office and duties of Coroners, is adapted for use in all the Provinces and Territories of the Dominion,

and in Newfoundland; and besides giving the changes in the Criminal Law, as enacted by the new Criminal Code, and the important alterations in Procedure and Evidence, which have been made by the recent Evidence Act, it contains an additional chapter giving a consecutive programme of the ordinary proceedings at an inquest, with the forms of Oaths, Coroners' Addresses, Proclamations, etc., in their order, as required. This programme will enable Coroners to see at once what comes next at all stages of an inquest, and will prevent any delay for consideration, or to find the common forms used at all inquires, and it is believed, will prove a valuable addition to the work.

The author, having had a long and varied experience with Coroners' Law—of forty years since the publication of his first edition in 1864—gives this edition as the fruits of a mature consideration of the subject.

The publishers are confident that the Coroners who make use of this work will realize an obligation to the author for having placed in their possession so thorough a work to guide them safely in the execution of their responsible duties.

The work has been increased in size to 600 pages, and makes a fine volume bound in half-law-calf, and will be sold at \$5. The book is now ready.

A Practical Treatise on Nervous Exhaustion, Neurasthenia: its Symptoms, Nature, Sequences, Treatment. By GEORGE M. BEARD, A.M., M.D., Fellow of the New York Academy of Medicine, of the New York Academy of Sciences, Vice-President of the American Academy of Medicine, Member of the American Neurological Association of the American Medical Association, the New York Neurological Society, etc. Edition with Notes and Additions by A. D. Rockwell, A.M., M.D. Neurologist and Electro-Therapeutist to the Flushing Hospital, Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, Fellow of the New York Academy, Member of the American Neurological Association, of the New York Neurological Society, etc. Fifth edition enlarged, New York. E. B. Treat & Co., 241-243 West 23rd Street. 1905.

This book will be a welcome addition to the library of physicians, more particularly those who in medico-legal cases are called upon to distinguish between hysteria and neurasthenia. Dr. Rockwell aptly diagnosticates neurasthenia from complaints to which it bears a certain resemblance; hysteria, hypochondria, anæmia, lithæmia, malaria, syphilis, common cold and rheumatism. Dr. Rockwell is a pioneer in the diagnosis and treatment of neurasthenia, his first paper on it, prepared in 1868, having been published in the Boston Medical and Surgical Journal, April, 1869. Since then other noted workers in the same field have appeared in America: Drs. Mitchell, Jewell and Goodell. Neurasthenia has been described by the German neurologist, Professor Erle, of Heidelberg, in Ziemss-

sen's Cyclopædia; by Dr. J. Grasset, in *Maladies du Système Nerveux*, and by Rosenthal, of Vienna, in *Diseases of Nervous System*. We notice that the term neurasthenia appears in the second edition of Dunglison's Medical Lexicon, 1857, so that this group of symptoms had a recognized place in medicine at that time. J. J. C.

Surface Anatomy. By T. GILLMAN MOORHEAD, M.D., Univ. Dublin, M.R.C.P.I., Physician Royal City of Dublin Hospital; late Chief Demonstrator of Anatomy and Joint Lecturer in Applied Anatomy, T.C.D.; Lecturer in Medicine, Royal Services School, T.C.D. London: Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1905. All rights reserved. Price, 4s.6d. net.

This work is eminently suited for the student of anatomy and as a refresher for the general practitioner. Beginning at the head the position of the nerve and arterial trunks, and the surface markings corresponding to the internal organs, are all carefully mapped out. There are 150 pages with twenty-three illustrations, colored and plain. The work is beautifully written, is full and comprehensive enough for all practical purposes. W. J. W.

Clinical Lectures on Appendicitis, Radical Cure of Inguinal Hernia, and Perforating Gastric Ulcer. By G. R. TURNER, F.R.C.S., Surgeon and Joint Lecturer on Surgery, St. George's Hospital. London: Baillière, Tindall & Cox.

This is an interesting series of lectures giving the results of the surgeon's work at St. George's Hospital. Two lectures on 140 operations on cases of appendicitis, two on operation for the radical cure of inguinal hernia and its results, and one on four cases of perforating gastric ulcer, together with notes of a case of acute dilatation of the stomach. F. N. G. S.

Progressive Medicine, a Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., assisted by H. R. M. LAUDIS, M.D. March 1, 1905. Philadelphia and New York: Lea Brothers & Company. \$6 per annum.

This volume contains articles on "Surgery of the Head, Neck and Thorax, Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza, the Diseases of Children, Laryngology and Rhinology, Otology."

As is usual, the writers give brief yet very thorough reviews of the recent literature relating to these subjects. In the section dealing with infectious diseases special attention is given to diphtheria, pneumonia, typhoid fever and rheumatism. A report is given of several cases of the latter disease that were treated with Menzer's serum with fairly encouraging results.

The section on diseases of children contains very sensible

observations on infant feeding, and infant foods. Milk should be clean and should be kept cold, under 50°. Dr. Darlington believes that 25 per cent. of the deaths among babies in New York during summer are due to milk rendered dangerous by its high temperature. Dr. Reynolds, Commissioner of Health of Chicago, is doing very important work by his efforts to shorten the time of transit of milk from the cow to the baby.

Equally important and interesting matter is contained in the other sections. This volume contains much that is valuable and is quite up to the high standard of previous ones. A. E.

The Diagnosis and Modern Treatment of Pulmonary Consumption, with special reference to the Early Recognition and the Permanent Arrest of the Disease. BY ARTHUR LATHAM, M.A., M.D., Oxon., M.A., Cantab., F.R.C.P., London. Author of the Prize Essay on the Erection of His Majesty's Sanatorium, etc. Second Edition, Demy 8 vol., pages 224. London: Bailliere, Tindall & Cox, 8 Henrietta St., Covent Garden. Canadian agents: J. A. Carveth, Toronto; Chandler & Massey, Toronto. 1905.

Notwithstanding the amazing amount that has been written on the treatment of pulmonary consumption, there is very great apathy shown in regard to it, both by the profession and the public. This is chiefly due to the chronicity of the disease and the great trouble entailed by its proper treatment, conditions that overtax the patience and perseverance of all except the most hopeful. This book will be found most interesting and useful to all who desire the latest and fullest views on both diagnosis and treatment. The scope of the work cannot be better shown than by quoting the brief contents of this excellent work: 1. The Varieties of Pulmonary Consumption; 2. The Diagnosis of the Chronic Forms of Pulmonary Consumption; 3. The Diagnosis of the Acute Forms of Pulmonary Consumption; 4. The Avoidance of Re-infection; 5. The Principles of the Open-Air Method of Treatment as carried out in a Sanatorium; 6. Details of the Open-Air Method of Treatment as carried out in a Private House; 7. Other Forms of Treatment; 8. The Treatment of Special Symptoms; 9. Special Considerations. A. MCP.

The Surgical Diseases of the Genito-Urinary Tract. BY G. FRANK LYDSTONE, M.D. Second Edition. Philadelphia: F. A. Davis Company, Publishers. 1904.

The first edition of this work came out in 1899, and at once took its place as one of the most scientific and at the same time practically useful books on the subject in the English language. The enlarged and greatly improved form in which it now appears makes it still more worthy of the confidence of the profession. Its author is a man who has something to say, who knows how best to say it and who has the good sense to stop when he has said it.

For many years he has been upon the firing line in this special department and no small number of his original suggestions have daily recognition in the work of surgeons the world over.

The work before us is one in which every subject is viewed broadly and in the full light of the best work done by others, as well as in the light of the author's ample personal experience.

A full return for the cost of the book is given in a single section—that, for example, on the use of the organic salts of silver in the treatment of urethritis.

The illustrations, press-work and binding, are alike creditable to the publishers.

N. A. P.

An Introduction to Chemical Analysis, for Students of Medicine, Pharmacy and Dentistry. By ELBERT W. ROCKWOOD, M.D., Ph.D., Professor of Chemistry and Toxicology, and head of the department of Chemistry in the University of Iowa. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904.

This is a neatly-bound and well-gotten up little book. It takes up systematically a short course in Qualitative, Volumetric and Applied Analysis, and contains many tables and references. As a High School text book or a reference book for a professional man who wishes to keep in touch with the subject, it is undoubtedly a very satisfactory production.

W. J. W.

A System of Physiologic Therapeutics. A practical exposition of the methods, other than drug giving, useful for the prevention of disease and in the treatment of the sick, edited by SOLOMON SOLIS COHEN, A.M., M.D.: Professor of Clinical Medicine in Jefferson Medical College, etc. Volume XI. Serum Therapy, by Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College of Philadelphia; Organo Therapy, by Oliver T. Osborne, M.A., M.D., Professor of Materia Medica and Therapeutics at Yale University; Radium, Thorium and Radio Activity, by Samuel G. Tracy, B.Sc., M.D., Radiologist New York Skin and Cancer Hospital; Counter Irritation, External Applications, Bloodletting, by Frederick A. Packard, M.D., late Physician to the Pennsylvania Hospital; An outline of the Principles of Therapeutics with especial reference to Physiologic Therapeutics, by the Editor, with addendum on X-Ray Therapy, and an index digest of the complete system of eleven volumes. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1905.

After a good deal of unavoidable delay, the publishers have succeeded in getting out the last volume of this most practical series. Volume XI is one of the best of the set and worth waiting for. It consists of nearly 400 pages in all, made up of 6 sections, and concludes with a full index of the entire eleven volumes.

Perhaps the most interesting contribution is that by the editor-in-chief, Dr. Solomon Solis Cohen, entitled "An outline of the Principles of Therapeutics with especial reference to Physiologic Therapeutics." It treats of therapeutic diagnosis, etiologic-therapeutic diagnosis, pathologic-therapeutic diagnosis, systematic-therapeutic diagnosis, therapeutic means and advantages of physiologic measures. The thirty odd pages by Dr. Samuel G. Tracy, on "Radium, Tharium and Radio Activity" are new and most instructive, dealing, as it does, with the metal radium and its therapeutic properties.

Dr. Frederick Packard, in his chapter devoted to counter irritation, external applications, etc., when referring to the use of the old-fashioned linseed poultice in the treatment of chest inflammation in children, says, "Here then are certain imperative indications to be met, which are not satisfied by the application of moist heat. The temperature is high and must be combated; the child is cyanotic and in constant danger of suffocation, hence remedies calculated to stimulate the respiratory centre and deepen the respirations are called for. The cotton jacket or heating compress must, therefore, give way to the more stimulating and heat-abstracting wet pack, either general or partial, or even to the half bath with effusions of cold water, as set forth in the Volume of Hydrotherapy."

W. A. Y.

Saunders' Question Compends.—Essentials of the Practice of Medicine. BY W. R. WILLIAMS, M.D., Doctor on Therapeutics, Columbia University. Double number. Cloth, \$1.75. Philadelphia and London: W. B. Saunders. Toronto: J. A. Carveth & Co.

A quarter of a million copies of the Question Compends have been sold, and this fact alone shows their value. The present is one of the most important of the series. It furnishes a convenient way of reviewing a student's work or of recalling the main points about any disease. The book is practical accurate and up-to-date, and contains the essentials of the subject in very small space.

Chemical and Microscopical Diagnosis. BY FRANCIS CARTER WOOD, M.A., adjunct Professor of Clinical Pathology College of Physicians and Surgeons, Columbia University, New York. Pathologist to St. Luke's Hospital, New York. With 188 illustrations in the text and 9 colored plates. New York and London: D. Appleton & Co. 1905.

The increasing necessity for the use of the microscope and chemistry as aids to diagnosis is a sufficient excuse for the appearance of this excellent addition to the rapidly growing army of pilations on these interesting lines.

Wood divides the subject into nine parts. Of these blood is given a prominent position, and this chapter alone would well

repay the diagnostician to have this work in his library; the subdivision on special pathology of the blood is full of detail and thoroughly practical, and will be found very helpful in differentiating the many anemias and leukemias. The other sections include urine, sputum, oral and nasal secretions, feces, parasitic and gastric contents, transudates and exudates and milk. There is also an appendix which treats of preparation of staining fluids, apparatus, reagents, etc.

The proper technique of the methods of laboratory diagnosis are well indicated, and the relative value of the procedures is emphasized.

Numerous photographs and plates have been carefully selected from capital blood slides and specimens.

Have the book near at hand if you aim at successful work.

W. H. P.

The Doctor's Recreation Series. BY CHAS. WELLS, MOULTON, General Editor, Vol. VI.—“The Diary of a late Physician,” being a new edition of selected passages, by Samuel Warren, D.C.L., F.R.S., arranged by Chas. Wells Moulton. New York, Akron, O., Chicago: The Saalfeld Publishing Co. 1905.

Vol. VI. of this excellent series is no less interesting than its predecessors. It consists of fifteen chapters, the opening one describing the early struggles of the young physician for a livelihood. The book is full of interest, and gives in detail the many vicissitudes through which the average medical man has to pass before it can be said that success has crowned his efforts. Perhaps the most interesting chapter is number VII, entitled “Consumption,” and describes the frightful inroads which are wrought by this dread disease, and how helpless the young physician is in face of, especially the inherited type.

Vol. VI. is well worthy of a prominent place on the physician's library shelves, and will be found thoroughly interesting and will help to wile away the hours of a summer's evening, and will make the hammock all the more tempting.

A Text-Book of the Practice of Medicine for Students and Practitioners. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; one-time Clinical Professor of Diseases of Children in the University of Pennsylvania; Laureate of the Royal Academy of Medicine in Belgium; of the Medical Society of London; author of “A Text-Book of Practical Therapeutics,” and “A Text-Book of Practical Diagnosis.” Illustrated with 129 engravings and 10 plates in colors and monochrome. Philadelphia and New York: Lea Bros. & Co. 1905.

Hobart Amory Hare requires no introduction to the medical profession of America, his reputation having preceded him

through his well-known work on therapeutics, as also that on diagnosis. The volume under review has been looked forward to with a considerable degree of pleasure and it takes but a short time to enable one to pronounce it as being all that was expected of it.

The book covers almost 1,100 pages, and is divided into nineteen separate and distinct sections. They are as follows: infectious diseases, diseases of the respiratory system, diseases of the circulatory system, diseases of the digestive tract, diseases of the peritoneum, diseases of the liver, diseases of the biliary tract, diseases of the pancreas, diseases of the kidneys, diseases of the ductless glands and lymphatic system, diseases of the blood, diseases of nutrition, intoxications, diseases due to animal parasites, and diseases of the nervous system (the latter divided into five subsections).

The volume is valuable for one reason, if for no other, viz., that it is the result of actual experience on the part of the author himself, who has been engaged for nearly a quarter of a century in active hospital work, as also that of teacher. Another prominent feature of the book is that it is practical, something which cannot be said of many so-called text-books of medicine. The author has given his views clearly and in such a manner that they cannot be misunderstood, being based largely upon statistics carefully compiled. Tropical diseases have not been lost sight of, either, and make a valuable addendum to the volume. W. A. Y.

Practical Pediatrics. A Manual of the Medical and Surgical Diseases of Infancy and Childhood. By DR. E. GRAETZER, editor of the "Centralblatt für Kinderheilkunde" and the "Excerpta Medica." Authorized translation, with numerous additions and notes by HERMAN B. SHEFFIELD, M.D., Instructor on Diseases of Children and Attending Pediatricist, New York Post-Graduate Medical School and Hospital. F. A. Davis Company, publishers, Philadelphia.

The above is really a reference book on pediatrics, concisely compiled from the best recent literature, supplemented by the author's personal experience of many years, especially the sections on therapeutics. The additions and notes of the translator are practical and concise, and altogether the work is one that the busy practitioner will find ready and helpful. A. R. G.

The Urine and Feces in Diagnosis. By OTTO HENSEL, PH.G., M.D., Bacteriologist in the German Hospital, New York, and RICHARD WIRL, A.M., M.D., Pathologist in the German Hospital, New York, in collaboration with SMITH ELY JOLLIFFE, M.D., PH.D., Instructor in Pharmacology and Therapeutics,

Columbia University; Neurologist, City Hospital, New York. Illustrated with 116 engravings and 10 colored plates. Philadelphia and New York: Lea Brothers & Co. 1905.

The smaller works on urinalysis are quite numerous, but we are not acquainted with any moderate-sized work which gives all one could desire of a practical character on the urine, and at the same time present one of the most practical guides to the examination of the feces that so far has been published. The examination of the feces occupies 167 pages, or rather more than half the book. A short chapter is devoted to the macroscopic examination, a second to the microscopic, a third to the bacteriology, a fourth to animal parasites, while the concluding chapter is devoted to the chemistry of the feces and the characteristic pictures in disease.

We are glad to see this practical work on this much neglected subject.

W. J. W.

The Principles and Practice of Asepsis. By A. S. VALLACK, M.B., Ch.M., J.M. (Rotunda), Sydney, Surgeon to the Berrima District Hospital, New South Wales. London: Bailliere, Tindall & Cox. Canadian Agents: Carveth & Co., and Chandler & Massey.

Dr. Vallack's work will make a useful addition to the library of the busy practitioner, and if he follows the rules laid down he will be surprised to find what a difference there will be in the results of even the most trivial wound.

The author is a strong advocate of the rubber gloves and makes out a good case favoring their use.

F. N. G. S.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Golden Rules Medical Practice. By LEWIS SMITH, M.D., M.R.C.P., London. No. IV., enlarged and entirely rewritten. 6th edition. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited.

The Sanitary Journal of the Provincial Board of Health of Ontario, Canada. Volume XXIII. Parts iii and iv.

Laboratory of the Inland Revenue Department Bulletin. No. 96. Jams and Jellies. Revised and augmented.

Memoranda Relating to the Discovery of Surgical Anesthesia and Dr. William T. G. Morton's Relation to the event. By WILLIAM JAMES MORTON, M.D., Professor of Diseases of the mind and nervous system and electro-therapeutics in the New York Post-Graduate Medical School and Hospital.

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